# CURRENT NOTES

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Jan/Feb 1996
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*If Einstein had trouble with General Relativity, why does it surprise us when Microsoft has problems with Windows or IBM has problems with OS/2? Hmmm?*

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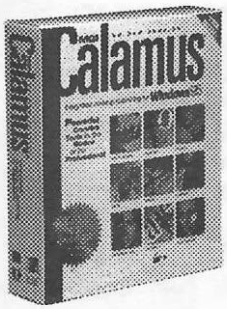


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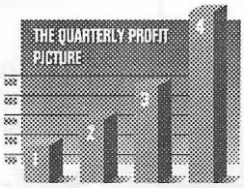


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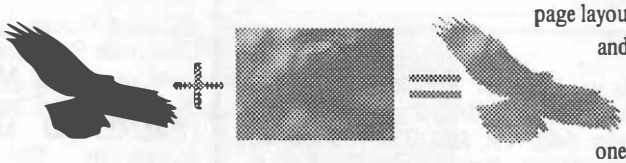

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*Cover Design: 'ROADWAY' . . . by Howie. Calamus SL, Outline Art 3.*

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README.NOW README.DOC README.ASC README.1ST

opinion, sense, nonsense, political reality

# FUTURES

robert boardman

## *Copyright . . . you are protected. But, watch out, or the Feds will be at your door!*

***"Copyright?" said my editor, "Why do you want to enter that mine field."***

### What It Is.

Copyright: if we take the word apart it means simply the right to copy . . . something. My old and battered Webster's dictionary says: *"the exclusive right to the publication, production, or sale of a literary, musical or artistic work, granted by law for a definite period of years."* That makes the issue not a lot clearer. This definition seems to hang on what one means by "literary, musical or artistic work." Many works which qualify for copyright would not qualify as literary, musical or artistic works to me, and I am sure you would also exclude certain materials which hold copyright based on these three criteria. The definition has been expanded somewhat since the mid 60s when my dictionary was printed. Copyright has been expanded to cover just about anything which can be printed or recorded by conventional or electronic means.

Copyright, the right to produce copies, is an old issue. The ruler of Egypt increased the size of the library in Alexandria (before the place burned down – what a loss that was!) through extortion. People who had a copy of any book not already in the library were forced to "donate" the book to the library, or suffer penalties, including the loss of their life. The pharoah wanted to be sure nobody had any books which were not already in his library. It was a democratic selection process, everybody was treated the same way. Unfortunately this collection method ensured that when the library burned, many thousands of irreplaceable books were lost. The pharoah held the copyright as he was the exclusive owner of the sole copy.

This ancient history illustrates why copyright law is a fairly recent phenomenon. From earliest times until the 15th century, making a copy of some literary, musical or artistic work demanded that the copier have an original, or at least an authentic copy, present at the same time. It is difficult to copy a manuscript if you don't have possession of it. With Gutenberg's invention of moveable type, the number of books available in Europe ballooned. Reading became a popular pastime, and writing polemics and pamphlets became a local sport in many places. Every public figure became the target of some interest group. The things different groups said about their opponents makes today's most scurrilous material look tame and polite, particularly in comparison to some of the political and religious material printed and distributed in western Europe in the 17th and 18th centuries.

### What it is not.

Gradually governments came to control and regulate the production of copies. This was, of course, at least partly in response to illicitly copied politician's material being distributed (cabinet "leaks" and "Deep Throat" are not new). But it was also in response to publishers' (and to a lesser extent, authors') demands to a fair share of the profits made in the distribution and sale of original material. (Money speaks when it comes to legislation.) For at least a century authors and publishers have had the right to seek remuneration if some of their copyrighted material is reproduced without permission. And this is the shiny sharp point of the law. Copyright controls

reproduction of original material. It is not designed to control the right to make money from a work, whether it is of an artistic nature or a commercial nature. Here is where the issue becomes important for all of us who use computers, particularly those of us who use computers to earn our income.

Yes, I know you have all heard speeches and read articles about software piracy. I know there are many people who justify the copying of copyrighted 8-bit software (or Commodore or Apple II or TI-99, etc.) with the following arguments. The company that produced the material has gone out of business. There is no one making money from this any more. There is no one who can sue me. So I can go ahead and give copies to my friends (or accept a copy from a friend, a BBS, the Internet) because nobody is getting hurt. Nobody is losing income.

It may be true no one is losing income. The originator may have gone out of business because of piracy. However, that does not mean you are not breaking the law. In fact I can guarantee you are breaking the law if the software was produced in Canada (I'll explain how I know that in a minute). If you are breaking the law, the police do not need an existing company to complain, they can arrest you and take you to court on the evidence you have in your home or business. This is not only a civil matter, which can be settled by the payment of some dollars (i.e. you are sued), and which demands that there be a party which can prove your theft cost them income or caused them loss. This is also a criminal matter. In Canada the copyright law is a federal statute, which means it is enforced by the Mounties. Do you really want your family and neighbors to see you dragged away in an RCMP/GRC car? Do you want to face the embarrassment and loss of your good name because you decided to take a risk and copy some old (or new) commercial software? Fear of arrest should not be the reason we do not steal copyrighted material, but it can be a strong disincentive for some.

## *Simplified Canadian Law*

Canadian copyright law, like most of our laws, follows what is called "common law." (Common law and common sense seem to have much in common in my mind.) I am not a lawyer, so, if you need a legal interpretation, get one from somebody who is familiar with the copyright rules and regulations. However, I have reasonably reliable information so you can accept this with only a small amount of skepticism. Original works, produced in Canada are copyrighted for fifty (50) years after the death of the author / composer / artist. In the case of material which is coded into circuit boards (i.e. ROM chips), the copyright lasts for fifty (50) years after the first board has been produced. This copyright is automatic, the works do not have to be registered with a central agency or so many copies reproduced and distributed. If you need to prove that you are the author / originator of certain material, it would help your argument immensely if others, particularly the federal copyright office, could substantiate your claim. But, in Canada, it is not necessary to file a claim or register a work in order for it to be copyrighted.

The copyright regulations in other countries are different. In the U.S.A. I understand the length of copyright is an initial 28 years, with an additional 28 years being available if requested. I understand there are moves afoot in the U.S.A. to lengthen the copyright period which makes people like Michael Hart anxious.

Dr. Michael Hart is the prime mover, initiator, visionary, of Project Gutenberg. I heartily endorse what Project Gutenberg is attempting to do, and encourage, even plead with you to volunteer some of your free time to this incredible project. The Project is dedicated to making available to anyone with a computer every possible written text, without violating any copyright regulations in the process. Project Gutenberg texts are in absolutely flat ASCII, which is useable by almost any computer anywhere in the world. Most of the material which has been transcribed so far is in English. This is partly because the basic ASCII character set (the first 128 codes) includes no accented characters). This restriction limits the project's usefulness only a little, since English is the fourth most used language in the world. However an increase in the length of copyright may adversely affect the output of the project.

Late last year Professor Hart sent a note around to all those who subscribe to the Gutenberg Project's Internet mailing list. In it he described what effects the proposed increase in copyright might have in the U.S.A. He asked readers to contact their elected representatives in order to make sure the proposed bill does not become law in the U.S.A. While his argument has some basis in reality, I had some difficulties with the math he presented. At the moment, if I understand what he said correctly, U.S. copyright regulations mean that the Gutenberg Project (or anyone else wishing to use copyright-free material) has to reach back at least 56 years (28 years X 2) in order to be sure something is in the public domain. To be absolutely safe, I think Project Gutenberg is suggesting volunteer typists restrict their transcriptions to material published before 1928. If the length of term of copyright is extended then much more material becomes protected.

Dr. Hart applied the extension of copyright to the well-known statement that knowledge is doubling every three years. Assuming knowledge is being made available to the public in copyrighted form, he argued that essentially none of this new knowledge will be freely available to the public for many many years. He applied the same reasoning to new artistic works (particularly books and magazines). One of his major claims is that literacy rates increase if people have books in their homes and communities. Of course, if there is nothing to read, then why would someone learn? And, of course, an extension of the length of copyright means books which are published this year will not be available to the Gutenberg Project for an even longer period of time.

it means that people struggling to learn to read will have to continue to read material written between the dawn of recorded history and the early part of this century. But they won't have free access to material such as the last issue of Wired, or Time or Newsweek or even any of the issues of Current Notes.

I think the Gutenberg Project is extremely important. I think those of us who understand how to use computers should devote some time to helping those who can benefit from our knowledge. Transcribing a book or two for the Gutenberg Project would be a marvelous way for you to help thousands of people. But extending the U.S. copyright period from 28 years to 50 years is not going to affect the number of books which you or I could copy into the project's library. It does mean people struggling to read will only have free access to material written between the dawn of history and the early part of this century.

## The Internet and Copyright

It is through the Internet that the Gutenberg Project makes its library available. It is also the Internet which has to take some responsibility for the increase in interest in copyright regulations. The World Wide Web, through its structure and method of operation, almost encourages users to breach copyright laws, at least on the surface. The Web Browser I use captures every home page I look at and stores it on my own hard drive. That makes finding what I want easier and faster, and it means I don't use as many of the limited resources of the Internet when I do repetitive searches. However, it does mean I have stored on my hard drive some copyrighted information: logos from Novell and WordPerfect for example.

Under copyright regulations, it is permissible for me to look at these logos (and any other copyrighted information) as long and as often as I want, just as I can read a book as many times as I want without paying any extra fees. Or use a programme as often as I want without paying a royalty each time. But I cannot, repeat CANNOT, use that copyrighted logo or information in anything I produce without obtaining permission and giving credit. It is possible I broke the copyright regulations in the preceding paragraph by using the trademarks Novell and WordPerfect, without at least noting they are trademarks. And it is unlikely that most computer users in North America would take me seriously if I claimed the Novell and WordPerfect logos and trademarks as my own work.

Some major movie production companies make their copyrighted material available for use on the WWW sites. Paramount has sound and video clips as well as stills available from many of their TV shows and feature films for download. Disney studios also has clips and stills from material as recent as the Lion King and Pocahontas. Copyright and trademark notices are quite visible on their Web sites, but these companies do not seem to have or post any obvious restrictions on the use of their material. If I find a particular sound clip I wish to use as part of own system each day (for example Simba roaring) then it seems I am free to do so. However, I believe it is illegal for me to put that sound clip on a disk and give it to you. That action qualifies as the illegal distribution of copyrighted material and could mean we would both be arrested, me for distributing and you for accepting stolen property.

Where does this get us? First it should be clear that copyright regulations are the mine field my editor said they are. Secondly it pays to be aware of what the regulations are in your jurisdiction. Each country where Current Notes is distributed may have different regulations. I find it helpful to think of any work that I might want to use as a book: 'do I believe I could legally copy / extract / use this material as I would a book'? If I am not sure, I seek advice from a lawyer, a librarian, other computer users, if it's material which is important to my work. If in doubt, leave it out. You cannot get into trouble for not using somebody else's material.

*Recommended:*

*Barlow, John Perry. The economics of ideas: A framework for rethinking patents and copyrights in the digital age. Wired, March 1994, issue 2.04.*

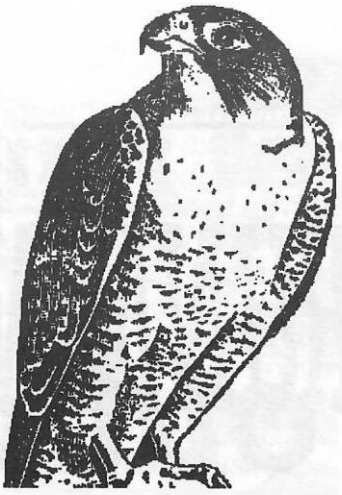
*Bolter, Jay David. Authors and readers in an age of electronic texts. in Literary texts in an electronic age: Scholarly implications and library services. B. Sutton (ed.) University of Illinois, Urbana–Champaign. 1994.*

*DeKoven, Michael. The emperor's new clothes: Copyright in a digital age. Information Highways. December 1995, pp. 24–26.*

*Industry Canada. Connection, community and content: The challenge of the information highway. Final report of the Information Highway Advisory Council. Supply and Services, Ottawa.*

*Many librarians are also knowledgeable about the features and restrictions of copyright regulations. They have to deal regularly with patrons and other librarians who wish to copy material.*

# ALL THINGS FALCON



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All Things Falcon contains a huge selection of Falcon specific, and 100% Falcon compatible software! Prepared specifically for Falcon030 owners, none of the software on this disc requires the use of ST emulators or compatibility software. You won't even have to switch to a compatibility model

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The ESG Collection includes over 6,000 raster images (IMG), and over 1,000 vector images (CVG & GEM/3), covering topics ranging from animals to weddings, also included in this collection is a selection of Public Domain and Shareware programs for viewing and editing images on Atari TOS based computers.

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# running RUNNING running out of RAM

*david barkin and his mutt, wander & wonder*

**FLASH: Barkin Bites Bits. Barking Bits Bite Barkin. Barkin Bites Dog. Dog Bites Barkin.**

**Confused? Uh-huh? David will help! Image Processing ain't easy, but Dave will clean things up . . .**

***For all practical purposes, a Mac (with the addition of MagiCMac), can be considered an Atari Clone. So if anyone is hesitating to make an investment in Atari software they can relax. The platform is alive and well, even if its taken an odd form. This article is primarily about Image Processing with Atari Software. It also contains some really good news about the latest update to MagiCMac.***

***DAs Repro, DAs Picture, True Image, and Studio Photo are image processing programs with rudimentary drawing features. They concentrate on the manipulation of digital greyscale and 24-bit color photographic images. Programs such as PixArt, Invision Elite 2.0 and True Paint, are conventional paint programs with the ability to handle multibit photographs. Calamus SL has many powerful image processing features. Specific to the Falcon is Apex Media, which has image processing features as well as the ability to create morphs and animated morphs. There is a stand alone morphing program called Metamorphosis. There are other programs with which I'm completely unfamiliar: Seurat (paint program), Chagall (image processing), and Papillion (a French, image processing program). The list is growing.***

***Before going on to take an overview of what many of these programs can do, let's define some terms.***

## Bits, Pixels, Color Levels

Computer graphics used to consist of 2-bit images. Each pixel making up your image was either black or white. The arrangement of these 'colors' would define the image. When you looked closely at a black and white photo printed in a book or newspaper, you'd see they were made up of black and white dots. The system worked (and still does!), but it also had tremendous limitations. If you expanded one of these 'mono' images, you were simply expanding the size of the individual dots. The image broke up and the edges became jagged; a typical, 'old-style', computer image.

As the personal computer became more powerful, new formats for storing or creating images became practical. Multibit images became the standard. An 8-bit image is capable of assigning one of 256 levels of color or grey to each pixel. An 8-bit image means 2 to the 8th power, thus the number 256. Each pixel can one of 256 levels of color or grey. When expanding such an image, areas of color are increased instead of individual dots. The old mono format tricked the eye into seeing levels of grey. The new 8-bit images actually have levels of grey, not patterns of dots. The digital darkroom is alive and well, with the ability to manipulate real photographic images in a computer. At present we can manipulate 24-bit images (2 to the 24th power: 16.7 million colors), 30-bit images (1 billion colors!), and even 36-bit images (where my math fails, but it's a lot of colors, trust me).

For all reasonable purposes, 24-bit color is more than enough! I can't see that many colors, and by gosh neither can you. I am not talking about blue or green or 'flesh' color (whatever that is), but degree of color. A very light blue is different than a very, very light blue, etc. With 24-bit color we can duplicate the finest work of art. With a good image processing program we can manipulate images in a far more

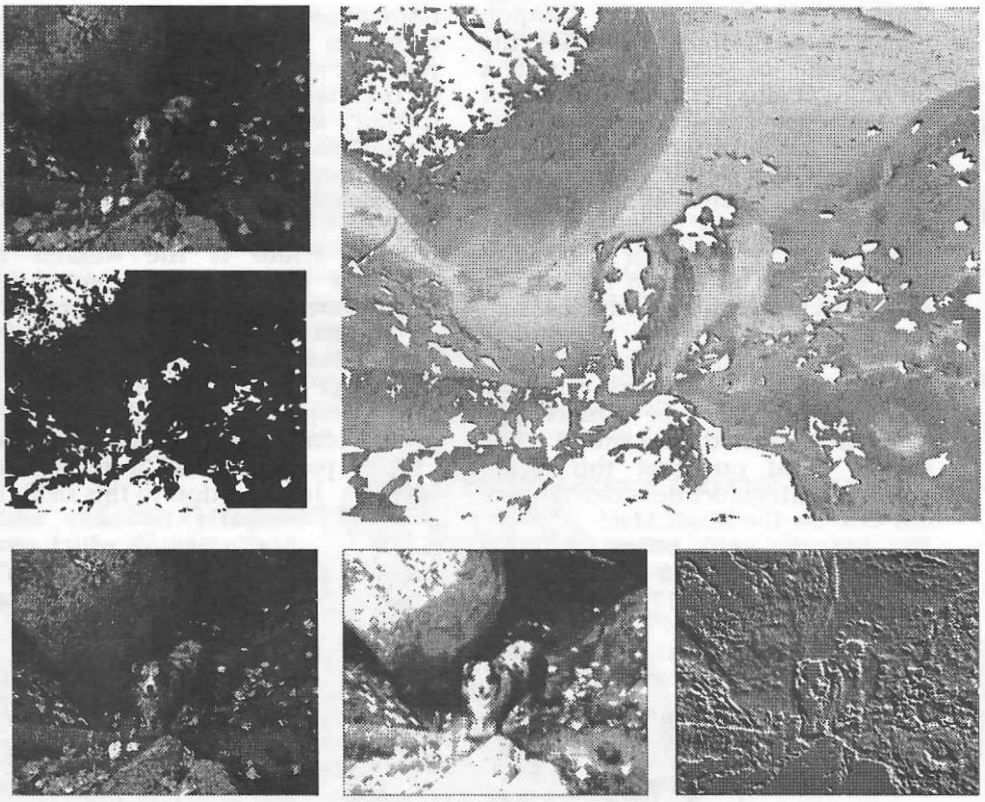

*Figure 1. The large image on the right is an example of using the MASK Module of Calamus SL. It was created by mixing a vectorization of an image and the original 24 bit image to create a foggy version of the original. Keep in mind that this example has been converted from color to gray and has lost much of its impact. The possibilities of Mask are endless because you can keep remasking masked frames. The original image is on the top left, below that is the results of using an auto tracer. The bottom row of images are respectively: Sharpen, Effect and Emboss. All of these are filters that come with the Calamus SL Filters Module.*

powerful way than any darkroom, and print the results (or have a service bureau do it), or even convert the work into a photographic negative, indistinguishable from a conventional photograph; very impressive potential. All of these capabilities are available to Atari users. Some Atari software is so powerful that even minimal STs with just 2 megs of RAM can manipulate these images. Another factor to be considered is that if your monitor is capable of displaying only 16 levels of color, manipulating 16 million colors is going to present an interesting challenge. But 16 levels of color will definitely allow (if not with ease, certainly with a great deal of accuracy), the manipulation of 8-bit greyscale images.

Just about all of the hardware and software you'll need, with the exception of a digital camera, is available for the Atari platform. It is more difficult however, for Atari owners to interface with the exotic $60,000 printers (drivers, we need drivers). If you count the Mac as an Atari Clone, then all of it is readily available. Despite using a Mac, I still maintain my interest in service bureaus for final output. This is because it took me a full five minutes to visualize the concept of $60,000 and finally summon the energy to type the words.

## Filters & Masks

Two more terms should be defined: 'Filters' and 'Mask'. Filters and their effects are one of the major components of image processing programs. In a conventional darkroom we can alter the contrast or brightness of an image. For example, we can increase the contrast of an image by shifting dark colors darker, and light colors lighter. Often enough this will increase the visibility of details in an image, though a certain amount of the image is lost by this process. Software can accomplish the same effect using a Sharpen filter. We can use it to increase the contrast between neighboring pixels without altering the contrast of the image as a whole. This brings out detail without losing image quality. A program like Studio Photo comes equipped with a slider bar labeled 'more' & 'less', while a high level program like DAs Repro allows altering contrast between individual pixels, small groups of pixels or larger groups of pixels. In DAs Repro you can not only select which colors will be affected, but their level as well.

The Sharpen & Soften are the most commonly used, but there are thousands of possibilities. You can use or create filters which assign effects to grids of pixels, each element of which can be given a different value. There are filters which eliminate noise (stray pixels), and filters which add noise. The list is endless.

Masking is the process of creating protection for parts of your' image that you wish to be unaffected by filters or other techniques. Masks can be created manually or by setting the masking tool to select certain color parameters automatically. They sit on top of your image and any action you take on the image as a whole, bypasses the masked area. If you mask an image, but leave an individuals face exposed and then apply the sharpen filter, the face will become clearer without altering the rest of the image. You can use this tool in collage work to put one object behind another. The possiblities are endless.

## What's Out There

What about current Atari Software? First and foremost are the programs DAs Picture and DAs Repro by Digital Arts. DAs Repro is actually quite old by computer standards. Its original authors quarreled and the program is now owned (minus some interesting accessory's), by Digital Arts. The interface is quite different: a separate screen where the actual image is displayed and a screen for the toolbox. Originally you could run the program on two monitors, one showing the image and one the tools. Users who remember Degas Elite will have little trouble grasping the concept. The program would only run on two monitors for owners of the German made COCO Matrix card. The present version of DAs

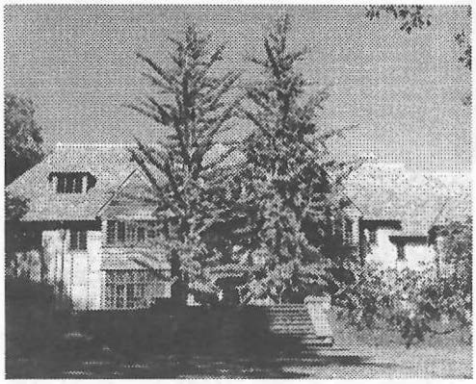

*Figure 2a & b. The original photograph of Innisfree Park and the result (on the right), of manipulation in PixArt. The picture was mapped onto this symmetrical grid . . .*

Repro will run on any ST computer, but only Falcon owners can take full advantage of color. ST owners will only be able to use the color capabilities if they have a graphics card and TT owners can use a supplied accessory driver to simulate TT Low. There is also an undocumented feature which allows TT owners to take advantage of either 16 levels of grey or a dithered color view of images in TT Medium.
All in all this is an incredibly powerful program. It comes with powerful user definable tools and at least a dozen different filters such as sharpen, blur, soften, roughen, contour, etc. The professional filters ACC which used to be distributed with the program is no longer available, but DAs Repro does come with ACCs for Postscript output, image conversion, a driver for the Epson series of scanners and quite a bit more. It also has as complete a set of tools for color correction. The program has one serious bug when using the Crazy Dots, Cyrel Sunrise or Nova graphics cards. When drawing in Line mode, the guideline which shows where your cursor is heading isn't visible at all with 8-bit images and barely visible with 24-bit images, except in TT Medium resolution. System Solutions, the UK distributor, is working on a new driver to be more compatible with these cards. I should point out that this problem with guidelines does not exist on the MagiCMac! The program runs better on the Mac than on a native Atari.

DAs Picture was designed in response to all the people who had a hard time getting used to the DAs Repro interface. Almost all actions are controlled with the mouse only. While that makes the program easier to learn, it also imposes a limit on how fast you can work. I absolutely love DAs Repro, glitches, bugs and all. DAs Picture is a more modern program and is constantly being improved while DAs Repro for all practical purposes, is the same program it was four years ago. DAs Picture is modular in nature and more modules are constantly being developed. There is now a complete Color Correction & Separation module which is incredibly powerful. DAs Picture also features eight levels of masking, which is to say that masks can be created to only cover part of an image's color, as opposed to DAs Repro where masks are all or nothing; it's much easier to mix various colors and effects. DAs Picture has another great feature: it has an incredibly fast, virtual memory function. This has been so well implemented that if you have enough RAM to load the program (2 megs minimum), you can more or less work with undiminished speed on images much larger than your free memory. It really works! I'm a big skeptic about any virtual memory scheme. I can tell you that Photoflash and Photoshop LE (Mac programs), slow to a crawl using virtual memory; not so with DAs Picture.

Studio Photo is the weakest & slowest of the image processing software. It's also very inexpensive, and has all the necessary features of image processing with one large exception: no masking. Despite this fault, it's a well conceived, well coded program, and a marvelous introduction to this field. It compares favorably with Mac programs which cost twice as much and don't even have drawing tools.

The next step up is True Image. It is competitively priced with Studio Photo and it also has some masking, although this feature isn't particularly easy to use.

Chagall and Le Papillion are not presently available in North America. They compare with DAs Picture but they are reported to be considerably slower. Chagall may be a good program to try if the speed is increased. It has been translated into English and I'm trying to get my hands on it to see how the program has been updated.

True Paint is a full featured program capable of working with 24-bit images. While capable of loading photographs, it is really designed for creating original images. It compliments an image processing program rather than offering an alternative.

PixArt has one feature which is absolutely amazing. Other programs have grids upon which you can map your graphic, but none of them have

the power of PixArt, because its grid is completely user defined. There are a dozen or so grids which come with the program, but you can alter these as well as creating and saving your own. Anything can be accomplished with these grids and the results are incredibly swift. On a normal ST a one meg graphic can be mapped in 45 seconds. On MagiCMac the results take just moments. This mapping is forty or fifty times faster than the results from Photo Shop plug-ins, which are nowhere near as flexible. It is this one feature which makes the program a must have for me. I've included an example of one of these alterations in this article.

## The Amazing Calamus

Then there is Calamus SL. It is such a flexible program that many of its modules can be combined to turn Calamus into a powerful image processing package. The Filters module contains a number of selections for Sharpening, Blurring, Embossing and a Generic Filter which can be used to create a host of other filters. After using the provided CYMK TIF export driver to convert 24-bit images into four color plane CYMK files, you can use CYMK Swap module to literally swap black with Magenta, Cyan with Yellow. The module's effects are almost instantaneous. You can also use the built-in graduation (contrast and brightness) controls to alter the depth of color of these new images. Results are often amazing. Results can also be exported as TIFs or GIFs. If you own the Bridge module, results can also be exported in just about any industry standard format, for use in other programs on other platforms.

In addition to all of the foregoing, Calamus also has the MASK module. It can be used to mix, cutout or invert two frames. If one of these frames is a photographic image, the results can be astounding. MASK is by no means to be confused with the image processing term. It works in a completely different way. In fact it's difficult to describe just what Mask does. If you use the Vector or Line Art module, you can literally cut out parts of your image by creating vector outlines and use Mask to cut the outlines out of your image; on the preceding page, the grid-mapped image was masked by a vector fill in order to flow the text around the graphic! There is even a primitive raster paint module called Brush which can be worked into the process. Calamus is a very powerful program for manipulating images, all on its own. It would be hard to put a dollar value on the image processing abilities of Calamus. You don't buy Calamus to do image processing, but the functions are there. Some features, if they were found in other software would be considered very basic, while other features are as advanced as you can get.

## More Good Stuff

These programs are a great argument for doing image processing with the Atari. The Floppy Shop in the UK, has just released Positive Image. From the news release it sounds as advanced as DAs Picture and at half the price (about $100). Computer Direct is about to release the North American version of Cranach Art Studio. This German program is at least as powerful as DAs Repro combining image processing with a complete vector program. Photoline (as its now called), promises to be a very powerful program (Ed. Note: we're not yet sure if this is a descendant of the original, brilliant Cranach Studio).

Vector drawing programs can be used to enhance the manipulation of raster creations. The Atari has programs which need not be shamed by Corel Draw or Adobe Illustrator. Operating in full color or monochrome are Outline Art 3, the more powerful DAs Vector and DAs Vector Pro and the just released Arabesque 2. Outline Art 3 is the only one that runs without any problems on MagiCMac. DAs Vector can now be used although it's Auto Tracer functions are inoperative. The ability to use DAs Vector is new with MagiCMac 1.21, and I can't wait to see what the latest upgrade does.

## MagiCMac News

The MagiCMac version I'm running (v1.21) has made a most important breakthrough: the Atari version of WordPerfect runs in both the special ST emulation mode and in regular monochrome mode. The three remaining users of WordPerfect can now die happy! Both Studio Photo and True Image now load and run properly. Virtual memory is now implemented in DAs Picture and Calamus. Calamus no longer has any glitches at all with one exception (the Speedline module). The Line Art module and the Filters module now work flawlessly.

The really interesting news, is about the latest release (v1.25). This version now runs on the Power PC, and with the aid of the Mac program Speed Doubler, runs Atari programs as fast as Native Mac programs. This incredible development should leave a number of people speechless. The Power PC is not a 68xxx computer. Rather it runs Mac programs in emulation. The program Speed Doubler is simply a better emulator than the built-in emulation of the machine/processor combination. The fact that Atari programs can take advantage of all this to run as solidly and quickly as programs deliberately written to take advantage of the Power PC chip, is one of those story's which I cannot explain. I can only appreciate it.

***I would appreciate feedback on image processing: questions, ideas, comments suggestions for future columns, and so on. Readers can reach me via e-mail at: d.barkin1 (on GEnie) or d.barkin1@genie.com (Internet). If you write to Current Notes, your questions and ideas will also be passed on to me.***

***Until next issue . . .*** ▲

E-mail David directly, or write/e-mail Current Notes. Our e-mail address is: hcarson@io.org or lianne@io.org

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#2-559 Birchmount Rd.
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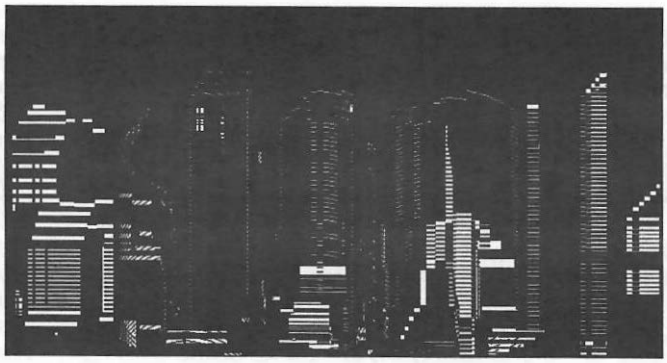
# the big city byte

*by howard carson*



*Unless you've been living in the jungles of Borneo during the past couple of years, the Internet phenomenon will not have escaped your attention. It seems to be a burgeoning fact of life and the harbinger of a sea-change for the manner in which we will all conduct our daily business. TOS/GEM users aren't left out of most practical internet access. If they're to move toward the layered, multi-tasked, graphically enhanced personal finance management that appears to be the next big phase in 'net development, a few things are going to have to appear, in order to continue with TOS/GEM involvement.*

Before anything else, TOS/GEM users are going to need access products which resemble the best combination of STiK, CAB, and Oasis. These three pieces of TOS/GEM internet access software, represent the current state of the art for TOS-based computers. The ftp, e-mail and Usenet access features of Oasis (which makes the best use of PPP connections) needs to be combined with the graphical World Wide Web access provided by STiK and CAB (utilizing SLIP connections). The resultant 'super app' would provide an all-in-one package for PPP or SLIP connections.

It's not an easy task to develop such a complex piece of software. However, there are legitimate financial rewards for any programmer who successfully combines the required elements, and presents them in an attractive, commercial package. And if for all practical purposes, the software is limited to use by TOS/GEM, GEMulator, or MagiCMac users with more powerful machines (MegaSTe, TT, Falcon, Medusa, C-Lab Falcon, DirecT030, PC/GEMulator, PC/Janus, Eagle, Pentium, LC575, LC630, Quadra, PowerMac), then owners of older, far less powerful systems, will simply have to acknowledge that their prized computing possessions are finally superannuated; that certain things just can't be properly accomplished in 320x200x16 color resolution, running on a MC68000 processor, at 8MHz. If the response to such a piece of useful software is tepid or needlessly critical, then we'll know where we all stand vis-à-vis continued, high-level development. The trenchant fear is that when such a package does appear, it's efficacy will be irretrievably damaged by the depressing morass which currently goes by the names Atarinet and Fidonet.

It is apparent these networks have some redeeming qualities. It is also apparent these networks are often dominated by a few vocal diehards, bent on turning back the technical clock (their vapid protestations to the contrary notwithstanding). New telecommunication enthusiasts logon to these networks in the hope of finding some legitimate means of technical support and new product information, and are continually confronted by this depressing clutch of diehards who are clinging desperately to old, outmoded, slow computers. Though the antiquated machines are severely taxed by even the most basic of modern applications, the owners are continually offering advice to users of more current machines. Although the owners of the older things rarely spend money on upgrades (and even when they do, it is done grudgingly and with great wailing), they offer wildly inaccurate advice on software and hardware (about which they know absolutely nothing), to anyone who will respond to their electronic messages. While such individuals are legion, they are not the largest group of TOS/GEM users. They are very active on-line however, and thus present a tremendous burden for any developer who must introduce software into a community which is moving on-line in ever greater numbers. Even those users with properly powerful machines, are negatively influenced by the loudmouthed schnooks who often seem to dominate the networks.

So, TOS/GEM developers are having a hard time overcoming negative on-line influences, during their attempts to introduce software that will eventually allow stable access to the greatest number of new on-line services. The loudmouthed schnooks dominate, and in the process destroy any hope of remedy for some of those things about which they continually complain. In addition, the percentage of outmoded, grossly inaccurate, and disingenuous 'support' provided by the loudmouthed schnooks, is worthy of a serious Consumer Alert. Remember that advice or data rendered on-line, is not automatically accurate simply by dint of the format and medium in which it's offered. The loudmouthed schnooks do not subscribe to any recognizable standards; all objects of interest are fair game. They even make denigrating and pejorative remarks about magazines they have neither purchased or subscribed to (or even borrowed for perusal!). It was recently discovered that one long-time STraight FAX complainer, was actually using a pirated copy. Another ostensible user (complaining long and loud about STiK and CAB), was discovered to be a dedicated Amiga

user. These individuals seem to need some means of establishing legitimate existences. They obviously spend far too much time staring into monitors, and too little time dealing with live humans. Electronic communication can never replace traditional socialization.

While consumer advocacy is inextricably intertwined with value for money, technical support, and an equitable marketplace, let's get one thing straight: there are limits to the market value and technological currency of any piece of modern hardware or software. Simply put, there are different standards which must be applied to the useful lifespan of any product. Those standards must be based on the ability of industry to produce products competitively, in a market environment which will respond to the promotion of the products. When older technology cannot be profitably supported, industry moves on. Industry follows trends introduced into the public consciousness (by general will, current need, or industry itself!), and attempts to meet those needs in as profitable a fashion as possible. Industry must decide whether to continue if it discovers, during the course of development and promotion, that the market at which it's aiming is difficult to hit. Often, millions (and tens of millions) are wasted in such efforts.

Make no mistake about it: the TOS/GEM market is extremely difficult to hit. Times have changed. Though there are thousands and thousands of users, they are scattered in disparate groups, with little means to support retailers (there simply aren't enough users in any one spot, to support the existence of many TOS/GEM dealers). The most successful TOS/GEM dealers now, are those who have moved the bulk of promotional advertising, consumer access and support toward mail order, on-line addresses, and concomitant national and international service. The newer developers have moved many of their basic interests towards on-line promotion, testing and evaluation. It is the only place where significant numbers of TOS/GEM users 'gather'. The loudmouthed schnooks are there too unfortunately, commenting balefully on every new development, because such new efforts won't function on their creaky old setups. These people are penurious to the point of distraction. There is still an offsetting, and tentative balance being maintained between the schnooks and the 'normals'. At any moment it could tip in favor of the schnooks.

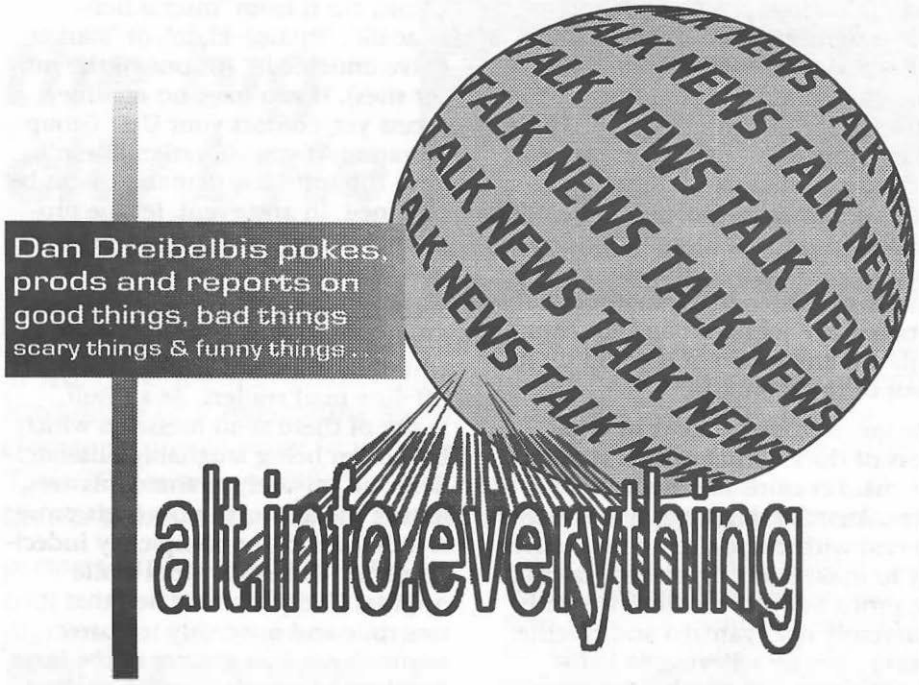
The same problems exist in other areas of the internet, which is one of the main reasons the 'net is such a mess. Anarchy reigns supreme, interspersed with corporate interests striving to make some organized, calculable profit out of a medium which is inherently disorganized and volatile. It may even be relieving to know that the national telephone service corporations (Bell, the Baby Bells, AT&T, and a few others), are gearing up to provide their own 'net access services. It's possible they'll put many existing providers out of business, but it may also be true that a major corporate alignment will provide reliable standards upon which access and business software can be built. It would certainly be a boon for TOS/GEM users, casual users (interested in fast, contemporary communications), and educators.

The ineluctable fact is that even systems owned by the loudmouthed schnooks can be used (for the time being) to run some of the new 'net access software being coded by some fascinatingly talented European programmers. It's all going to change soon however, and that will drive the loudmouthed schnooks to even greater efforts. Thankfully, there are a few simple actions which can be taken, to combat their depredations.

First, make contact with the programmers who are working on new packages; their e-mail addresses can be found in the current versions of their software. If you don't yet have any of the software, download it (or the demos), from your local BBS or GEnie, ftp it from 'micros.hensa.ac.uk', 'ftp.uni-kl.de', or 'atari.archive.umich.edu' (or one of the mirror sites). If you have no on-line access yet, contact your User Group Librarian. If your librarian doesn't have the software, demand that it be obtained. In any event, let the programmers know about your interests and support.

Second, the loudmouthed schnooks often spend a lot of time typing while they're on-line; they don't use off-line mail readers. As a result, many of them send messages which border on being laughably illiterate. Respond privately to these missives, letting the authors know their prose is either idiotic or completely indecipherable. Remember that while original Netiquette dictated that it was rude and unseemly to correct anyone's on-line grammar, the large numbers of people coming on-line now, require some sort of correction. If there is no movement toward the use of grammatical standards, the 'net Babel is going to spin out of control. As we transfer a significant proportion of our social and business conversation to the on-line medium, we're going to have to admit that typical, verbal forms do not easily convert to written forms. We also have to understand that everything we write on-line (unless it's private e-mail), will be read by hundreds (if not thousands) of people.

Third, if Caveat Emptor applies in most things, remember that there will be little about which we'll have to 'beware', if the loudmouthed schnooks are allowed to run wild. Hug your local programmer? Well, maybe not. But at least send supportive e-mail to the programmers, hard at work developing software that will silence at least some of the loudmouthed schnooks. ▲




- CHRO-MAGIC RELEASES NEW ATARI-SPECIFIC CD-ROMS: ChroMagic Software Innovations recently announced the availability of new CD-ROMs of especial interest to Atari users - here's a listing of what's new:

The Crawly Crypt Archives Volume 1 (from the Crawly Crypt Corporation): This CD contains *ALL* the files from both the Crawly Crypt Collection Volume 1 *AND* Volume 2 CDS in ZIP format. Best of all, this CD is 100% BBS ready - all file areas contain standard FILES.BBS file descriptions. The CD also contains sample config files for BinkleyTerm, Fibu, QuickBBS (FLSEARCH.CTL and COMPLETE QBBS menus), and other programs. Suggested Retail $59.99 US.

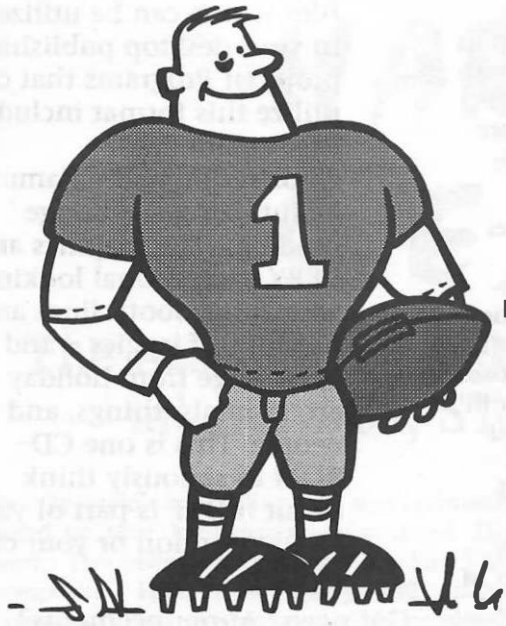
The Moving Pixels Collection (from the Crawly Crypt Corporation): The *total* Atari programming efforts of Tony Barker/Moving Pixels is presented on a single CD ROM. This CD includes the executable binaries AND complete *source code* to every ST/ Ste/ TT/ Falcon030/ Portfolio program, utility, game, and demo ever written by Tony Barker (one exception - Art For Kids is *NOT* included on this CD - however purchasers of this CD can buy Art For Kids at a GREATLY reduced rate). The world famous "Tina Demo" for the Falcon030 *is included* on the CD in both binary and source code form! If you like games, demos, or have an interest in programming (find out just how he created those special effects) then you will want to get the Moving Pixels Collection. Suggested Retail $34.99 US.

All Things Falcon CD-ROM (from SFT Publishing): The All Things Falcon CD-ROM contains a huge selection of Falcon specific, and 100% Falcon compatible software. Prepared specifically for Falcon030 owners, none of the software on this disc requires the use of ST emulators or compatibility software. You won't even have to switch to a compatibility mode. Topics covered include: Applications, Demos, Games, Graphics, Sound, Utilities, and much more. Suggested Retail $19.99 US

④ Electronic Spinster Graphics Atari Clipart CD-ROM (from ESG Publishing): The ESG Atari Clipart CD-ROM represents the entire Public Domain clip art library from Electronic Spinster Graphics! This CD contains over 6,000 raster images in IMG format, and over 1,000 vector images in both CVG and GEM/3 formats. Topics covered range from animals to weddings. All Images are top quality, and royalty free! And because the images are provided in native Atari formats, they can be easily used within virtually any Atari Application! No more converting from a crude IBM or MAC format! Suggested Retail $19.99 US.

- HADES 040 TOS CLONE: recently unveiled at the ProTOS show in Germany is a new TOS-based computer from the makers of the Medusa TT clone. Called the Hades, it's based around the Motorola 68040 chip; it also features a PCI bus, the ability to utilize both SCSI and EIDE drives, and can be upgraded up to 256mB. Word is that it will retail for around 3400 DM, and will appear for sale around March '96.

- ASH HAS UPDATES COMING!: Also shown at the ProTOS show were updates to Application Systems Heidelberg's (ASH) two most popular products. MaGIC 4 was shown - the popular replacement for TOS has received redesigned GEM windows, improved AES features, and a brand-new file selector, and is fully compatible with the Falcon. As well, version 4 of NVDI was also shown - new features include support for PostScript Type1 fonts, as well as better font loading and faster vector text output. Most likely English versions will be on the way soon.



OTHER NEW PRODUCTS OF INTEREST FROM THE PROTOS SHOW:

- C-LAB showed off a version of their Falcon Mk II in a new casing that looks similar to a VCR, complete with a separate keyboard.
- A company called OVERSCAN unveiled a new multitasking system for Ataris – called N-AES, it's AES 4.1 compatible, has a variety of features (including the ability to shut off the menu bar), and full MiNT compatibility. It'll ship complete with the latest version of MiNT and the Thing replacement desktop.
- GENIE SUPPORTS ATARI USERS: In these days where support for the Atari line of computers is either disappearing or not even considered by BBS services, it's heartening to see that GEnie still remembers their users who use TOS-based systems. To begin with, a new version of their ALADDIN automation program for rapid message retrieval and posting, as well as file down loading, has appeared, which will run on any Atari with 1 megabyte of memory. As well, the ST Roundtable version of the GEnielamp newsletter will now be made available in a special .HYP file format for use with the ST GUIDE hypertext reader program – this format allows one to find the news story or column of interest rapidly by clicking on the title in the index, as well as allowing for graphics to be included alongside the article!
- NEW VERSION OF BLOWUP – interested in expanding the size of your Falcon's on screen desktop with a hardware screen enhancer, but incapable of doing so because you're using a dongle in the cartridge port for an application that blocks the side joystick ports which the hardware requires for power? A new version of the BLOWUP hardware system has appeared that solves this problem – called BLOWUP FX, it's designed to plug into the internal expansion port inside the Falcon. But screen expansion isn't the only thing the new version of BLOWUP does – it also allows for RAM expansion beyond the 14mB limit (including TT RAM), and acceleration for the CPU bus (20MhZ), clock (20mHz), and DSP (50mHz). For more info on the new product, contact:

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- NEW GNU CD-ROM: Anyone into the Atari ST for programming, as well as die-hard Atari users, will be aware of a number of software products done by the GNU Project released as freeware, including Ghostscript, Emacs, GNUchess, and the GNU C/C++ compiler/debugger. Now a new CD-ROM by Pacific HiTech has appeared that features the complete sources of utilities and programs from the GNU Project's prep.ai.mit.edu Internet site, as well as the complete suite of GNU binaries for the Atari ST/TT/Falcon! (Binaries are also included for the Amiga and OS/2 platforms). Part of the proceeds from this CD goes to fund the Free Software Foundation. Suggested Retail $29.95 US; check your local dealer or contact:

Pacific HiTech Inc.

3855 South 500 West, Suite M

Salt Lake City, Utah, USA 84115

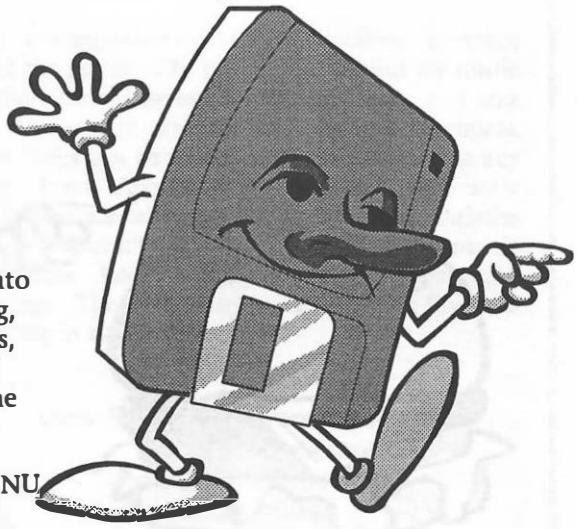
phone 801-261-1024

fax 801- 261-0310

e-mail info@pht.com or orders@pht.com

WWW site http://www.pht.com/

- UPDATE ON WWW BROWSER: If you've gotten hold of the CAB/STiK WWW Browser package as reported in the last issue of CURRENT NOTES and find that it's not working for you, DON'T PANIC! Alexander Clauss and Steve Adam, the two programmers who are working on the package, are busy beavering away at the bugs that have



been reported by a number of users and have been steadily providing the net with the most recent versions as soon as they're available. As of this writing, the freeware package is sitting at version 1.15 and has been significantly improved, including some new gadgets in CAB's window interface.

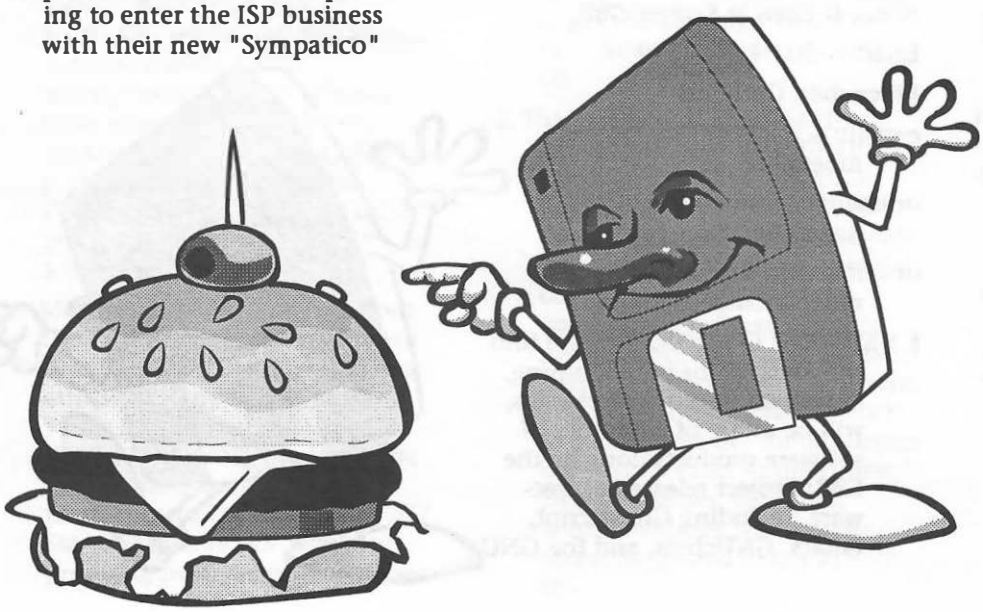
- MA BELL BLINKS, EH: Bell Canada recently had to do an about face after announcing that they would be raising the monthly rates of phone lines for Canadian Internet Service Providers (ISPs) by as much as 300%. Bell claimed that they had mistakenly been undercharging ISPs for their use of Centrix III lines for years and were immediately raising the rates in order to stay in line with Canadian Radio-Television and Telecommunications Committee (CRTC) regulations regarding communications fees. There was a month of backlash however, by a number of Canadian ISPs under the name Responsible Internet Service Companies (RISC). They conducted a campaign on the Usenet against Bell's actions, and applied for a motion with the CRTC to fight the rate hikes. This, combined with press reports that Bell was also planning to enter the ISP business with their new "Sympatico" service (thereby using unfair practices to hobble the independents) caused Bell to drop its billing plans and cooperate with RISC on negotiating new alternatives. You can find out more about RISC at http://www.idirect.com.bell/.
- BAD MOOD: at press time comes word of a rather interesting project going on in France regarding a new program for the Atari. Called BAD MOOD, it's a program that allows you to load WAD files designed for use with iD Software's brute-force-and-ignorance game DOOM and view them on your ST/TT/Falcon! Currently at the alpha stage, the program so far only shows the rooms and not any of the monsters, though work is said to be progressing rapidly - with the possibility of it actually becoming a full-fledged game someday!

## DAN'S CD CRYPT

WAYZATA CLIP ART NOVICE - I bought this one completely on a whim one day - and am I glad I did! This is a collection of over 200 Encapsulated Postscript (EPS) files which can be utilized in your desktop publishing projects! Programs that can utilize this format include Pagestream 2.2, Ghostscript, and Calamus SL (utilizing the Bridge module). The graphics are VERY professional looking, with full smooth lines and no signs of jaggies - and they range from holiday art, animals, things, and people. This is one CD-ROM to seriously think about if DTP is part of your job description or your career.

Got news? Announcements? Concerns? Send me what you have and I'll try to fit it in - I can be contacted at: D.DREIBELBIS (GEnie address), or d.dreibelbis@genie.com.

And remember: "Do you ever wake up in the middle of the night and think: 'I'm full of hot gas'?" David Letterman to Rush Limbaugh, "Late Show", December 17th, 1993.



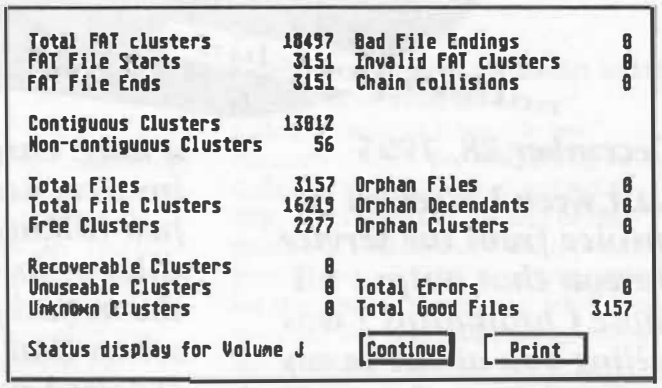
All of the graphics in this month's alt.info.everything were taken from the Wayzata Clip Art Novice CD. The football player is not a member of the Dallas Cowboys ... YET! The editors of Current Notes do not like the Cowboys, and are still mightily disappointed that the Buffalo Bills got knocked out in the second round of the playoffs.▲

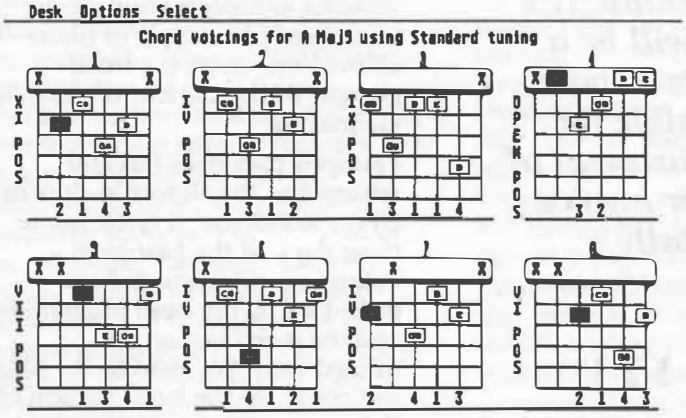
# HARD DISK SENTRY™

## The best selling disk repair and optimization utility for all Atari ST, STe, TT, & Falcon030 computers.

Get the world's best selling hard disk optimizer (defragger) and speed up your hard disk's performance! Hard Disk Sentry works flawlessly with all Atari ST, Ste, TT, and Falcon030 computers. Hard Disk Sentry will diagnose and repair common - and dangerous - disk problems on hard disk partitions of any size. It even works on floppy disks and Syquest drives.

Hard Disk Sentry now includes the Quickopt module that allows for unattended optimization of hard drive partitions. You can specify any partition(s) to be optimized via simple command line parameters. Quickopt will analyze the specified partition(s) and, if no problems are found, it will optimize them. Quickopt will NOT attempt to optimize any drive on which it encounters errors. It will, however, keep a log of all errors it encounters so you may repair them using Sentry.




# Guitaristics

Guitaristics is a comprehensive music/education program centered around the guitar. The program is perfect for music students, especially those interested in music theory and jazz improvisation. Guitaristics presents 48 scales and 68 chords. The chords and scales can be independently transposed to any theoretical key from Abb to G𝄪. Chord and scale interaction is instantly analyzed and displayed. Guitaristics will suggest chord substitutions and provide a harmonic analysis of each scale. Additionally, every chord comes with 8 different fingerings. The chord display shows which finger to put on which string in every key!

chro_MAGIC Software Innovations
Suggested Retail Pricing (in US Dollars):

| | |
|---|---|
| Guitaristics $69 | Pianistics $79 |
| RAM Gizmo $99 | MultiSync Gizmo $25 |
| Keyboard Gizmo $79 | Falcon030 A/V Cable $9.99 |
| Hard Drive Sentry $49 | |

**chro_MAGIC Software Innovations**
**516 North Jackson**
**Joplin, MO 64801-2755**
**United States**

**Phone: + 1-417-623-7393**
**Fax: + 1-417-624-0700**

*Nathan fixes aaaaaaall our problems . . .*

# Potechin ON Publishing

nathan potechin

**Calamus Travels?**

**Photoworks Fixes?**

**Odds & Ends?**

***December 28, 1995***

***Last week I received the invoice from the service bureau that output all those Chromalins I was telling you about in my last article. A chromalin is a color print created from your CYMK film. It will accurately reflect the end result of your color output. It is always necessary to supply some kind of color-based guideline to your printer so that he can correctly match the colors. A chromalin is the most accepted and accurate color key. The invoice came to slightly under $4,000!***

***When I regained consciousness, I carefully dusted myself off and took a long, careful look at the invoice. Remember, we are just talking about the color proofs and film, not the actual printing! It seems that someone expected me to pay for all those errors I'd found in the printer's work. Either they thought I was naive or just plain dumb. It's certain there will be a small discussion about who is responsible for what. A readjustment of that particular invoice will not be totally unexpected.***

❱❱❱❱❱❱❱

***Calamus Travels . . .***

A few weeks back I flew to Denmark. I left Friday evening, arriving in Heathrow airport in the U.K. at approximately 7:00 a.m. local time (1:00 a.m. my time). After a layover lasting a couple of hours, I flew to Copenhagen. All I needed to do was reach Odense in the Danish interior, but the next flight didn't leave for 4 hours. So although I hadn't slept in 24 hours, I stored my bag and jumped a bus to downtown Copenhagen. I hadn't been there in twenty years, and it seemed like a good plan on a cold, beautiful day. I got lucky – Tivoli Gardens was open. This is a lovely park in the heart of Copenhagen. Walking around outside for the better part of a couple of hours allowed me to catch a small glimpse of Danish life. It was quite fascinating.

I jumped back on a bus and returned to the airport in time to fly on to Odense. It is the home these days, of the European Calamus programmers. I was picked up by the head programmer and the meetings started immediately. We went to the office so I could see the latest version of Calamus, meet the other guys and then buy them all dinner(!). Somewhere around 11:00 p.m. I checked into the hotel and promptly fell asleep. The meetings continued at breakfast, and ended when I returned to my hotel room

the next night, near 10:00 p.m. At 5:30 the following morning I woke, showered, dressed, packed and made it downstairs just in time to be driven back to the airport. I arrived in Toronto about 12 hours later (Monday afternoon local time). I don't recommend this trip for the faint of heart.

Since that time there have been a great many more meetings. I hosted a couple of Europeans here in Toronto last week (for the entire week). We met with the new President and CEO of MGI Software Corp. and planned out the look and feel of the next generation of Calamus for Windows 95 and Windows NT.

For those not paying attention, in November '95 MGI Software Corp. bought the worldwide rights to Calamus, lock, stock and source code. I am now Director of Desktop Publishing for MGI and in that role, will continue to represent the interests of us Calamus types the world over. Everything to do with Calamus now goes through me. I have taken great pains to place a large target smack dab in the middle of my forehead and stand ready to receive all missives thrown in this direction.

Perhaps the best way to describe MGI is by quoting an article from the front page of the December 14, 1995 issue of the Financial Post, which had this to say about the new President and Chief Exeutive Officer (CEO) of MGI Software Corp.: 'AST Canada Inc. received a blow yesterday when the executive who led it from obscurity to become Canada's fourth largest personal computer maker, quit to take the helm of a new multimedia software developer. The Canadian subsidiary of AST Research Inc. of Irvine, California has seen annual sales grow to about $400 million from $32 million since general manager and vice president Anthony DeCristofaro took over in 1991. DeCristofaro will become president and chief executive of Markham, Ontario-based MGI Software Corp. MGI recently raised $3 million through a private placement and plans to go public by February'.

### *Photoworks Fixes . . .*

I finished the new Photoworks advertisements and boxes last week. The boxes are now being produced. The ads have been placed in Windows Sources, PC Magazine and PC Computing for a combined exposure of 2.5 million circulation; serious numbers. Please let me know if you see the ads and share your thoughts with me on their look. Photoworks is now available for Windows 3.1, Windows 95 and Windows NT. It is an excellent product with a $49.95 estimated street price. Registered users will be receiving more information on this product any time now. The head programmer of Photoworks is Alan Page of Flash 1.6 fame. I'm sure some of you will remember him.

The Photoworks boxes are interesting. About 5 seconds after I officially came aboard MGI, the entire 'box job' was dropped in my lap. The last time they ran the job there were problems with the colors. It seems that the fluorescent green that was used on part of the PhotoWorks name itself, interfered with the bonding process of the intended UV coating. They had used an aqueous-based solution. The sheen wasn't that great and there was also some small discoloration in the model's face on the front cover. To my eye, the colors were simply too strong. Anyway, the green is gone, replaced with an outlined white and blue. The UV coating is in place and adds a nice shine to the packaging. We again used a book style (similar to Calamus 95), for the box design; the extra flap is filled with information about the product. There still seems to be some concern about the UV coating and the manner in which it will bond with the material it covers. The printer that did the Calamus box raised no such concerns. The Calamus box shines quite nicely. Regardless, this new printer wants two days to dry the run, two more days to apply the UV coating and at least a couple of days to allow the coating time to dry before cutting and folding. The time of year being what it is suggests the job won't be delivered until the second week of January, although they've had the film for a couple of weeks. These are all issues that must be taken into consideration when planning timelines. When I thought to run a similar job at the same time, on the same stock, and thereby reduce costs, the printer was unable to obtain a sufficient additional quantity of the paper in time to do us any good. You really do need to allow your printer time to order sufficient quantities of stock.

### *Odds & Ends . . .*

Brian Harvey called me earlier today from Connecticut on a Calamus-related issue. He was concerned with the WYSIWYG on his Calamus SL vs the final output to film. We discussed the use of the printer 1:1 feature of Calamus that guarantees WYSIWYG output, based on the printer driver and resolution selected. He also said that he enjoyed my small contribution these last two issues. Thanks for mentioning it, Brian. He also said that he really liked this new Current Notes. His exact words were something about finally reading an Atari magazine that was full of articles of personal interest to him. I figure after I mention his name, he'll go out and buy extra copies of the magazine for all his friends and family.

As always I will consider your response to this article when formulating the next. Contact Current Notes or myself directly. Contact me on-line at POTECHIN or DMCPUBLISH on Genie, 76004,2246 on Compuserve, DMCPUBLISH on Delphi or POTECHIN@GENIE.COM through the Internet. ▲

*The first in a series on PIM's for TOS/GEM users*

# Personal Info Management

## WE NEED HELP

Harlekin?
InTouch?
DaCapo?
CalAppt?
CardFile?


***Howard, Robert, Lianne, Steven, and Harvey begin a series of reviews on Personal Information Managers***

***With more and more Home Offices, employment via cellular phone, networked businesses, and multiple job situations springing up all over the place . . . Personal Information Managers(PIMs), are becoming an absolute must. The most powerful of all the PIMs available for TOS/GEM computers is something called Harlekin.***

Harlekin isn't the only game in town, however. There are a variety of useful PIMs, somewhat less powerful, but very handy nonetheless. The first of the bunch in this series is a nice, small application by the name of CalAppt. It was written by Atari Corporation (probably by one of many nameless, excellent programmers who have wandered in and out of Sunnyvale over the years). It was first released as part of the Falcon030 software bundle, supplied with all of the Birds sold with internal IDE hard drives. It is also one of the few English language PIMs which is completely stable on the Falcon.

CalAppt (the full name is Calendar/Appointment), runs as a Program or Accessory. It multitasks well under Mint & MultiTOS, Geneva, and MagiC. It operates in all ST/TT & Falcon screen resolutions, as well as the extended resolutions offered by graphics cards. It also seems fine on Falcons running BlowUp or ScreenBlaster. It seems to be useful and stable on all machines running TOS 1.04 to 4.04.

CalAppt is a combination Phone & Address Book (P&A), Phone Dialer, Appointment & Event Scheduler, and Alarm Clock. Daily, weekly, monthly, and yearly one-time or repetitive appointments and events, can be setup (take a look at the screenshot of Scheduler Configuration dialog). Note there is no advance warning feature; if an appointment is scheduled for 2pm, that's when the alarm will pop up. If you need advance warning, set your appointment in CalAppt for an hour or two early (whatever your schedule demands).

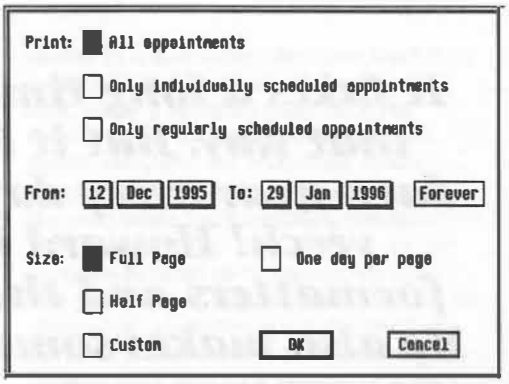
The Calendar extends past the Millenium (up to 2038), so you shouldn't encounter any problems when all the old Mainframe clock systems explode at 12:00:01AM, January 1st, 2000.

Most people will want to use the Print feature in CalAppt, in order to print out their daily or weekly schedule. The print output is accomplished with a built-in, generic Epson/ASCII driver. The print format is single column only, and there's no way to make the more efficient use of your paper (the printer driver is part of the program code). It's a small drawback though, because the printing seems to work flawlessly otherwise. You can also print out the entire contents of your P&A Book; just make sure you have lots of paper on-hand.

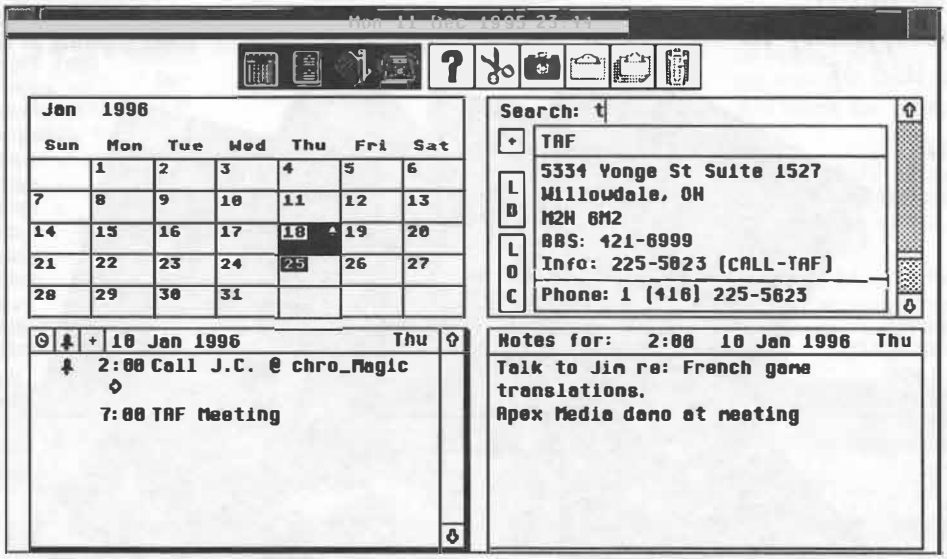
You can make extended notes for each calendar day; the main scheduling window only provides a very small amount of space, so the Notes section is extremely handy. You cannot attach notes to specific appointments; only for the entire day/date.

The P&A Book is also limited where typing space is concerned, but should be adequate for all but the more complicated business or e-mail addresses, and phone numbers. There are 7 lines X 28 spaces/line (the phone# line is 22 spaces). If you're planning on writing a similar piece of software, be sure your P&A Book has at least 2 more lines, and a line length about 10 spaces longer.

The P&A Book has one of those nifty hierarchical search functions: place your cursor on the very top line of the P&A Book, backspace over whatever is there, and begin to type in the first few letters of the name you need. If you've made your entries following the 'Last Name, First Name' convention, the entry you want will appear almost instantly. Clicking on the 'LD' (Long Distance) or 'LOC' (Local) boxes will then dial the phone for you as long as you've got a modem hooked up.




Print out one day, or a whole range. There's another dialog for printing your P&A Book . . .

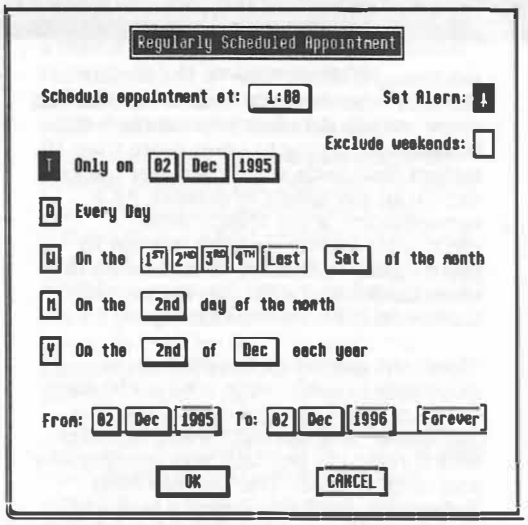



All four CalAppt windows open at once . . . it's much more useful this way!

CalAppt is supplied with a competent, clearly written manual, which is only 15 pages long; there's no excuse for not reading the thing. The program is straightforward and lends itself to intuitive use. There are a few small usage tricks which the manual reveals.

CalAppt does not have any utility programs; it is self-contained. If you want it to launch at the beginning of the day (when you first boot up), you'll have to set up your DESKTOP or NEWDESK INF files to Autoboot CALAPPT.PRG. Boot Managers such as X-Boot and SuperBoot will also automatically launch CalAppt. You can run CalAppt simultaneously as an Accessory and Program.

An Auto folder program such as Bill Aycock's excellent CalShow, used in conjunction with CalAppt, is a particularly useful combination . . . which brings us to the most important caveat about using PIMs.




The scheduler is versatile and PIMs are useless without one like this!

## Habit!

None of the available PIMs in the TOS/GEM market will be of any use, unless you get into the habit of using them faithfully and regularly. Organizers are useful (in other words), only if you're disciplined enough to use them in the first place. Utilizing a PIM part of the time, and typical, scribbled notes the rest of the time, will likely result in chaos; just the sort of thing a PIM is supposed to eliminate. Bad habits are easy to break, only if you acknowledge they're bad in the first place! At first, using a PIM can feel very restrictive. But once you settle on a piece of software that suits your particular needs, you'll find it much easier to limit appointment notes where necessary,, refer to the software often, habitually print out your appointments, and so on.

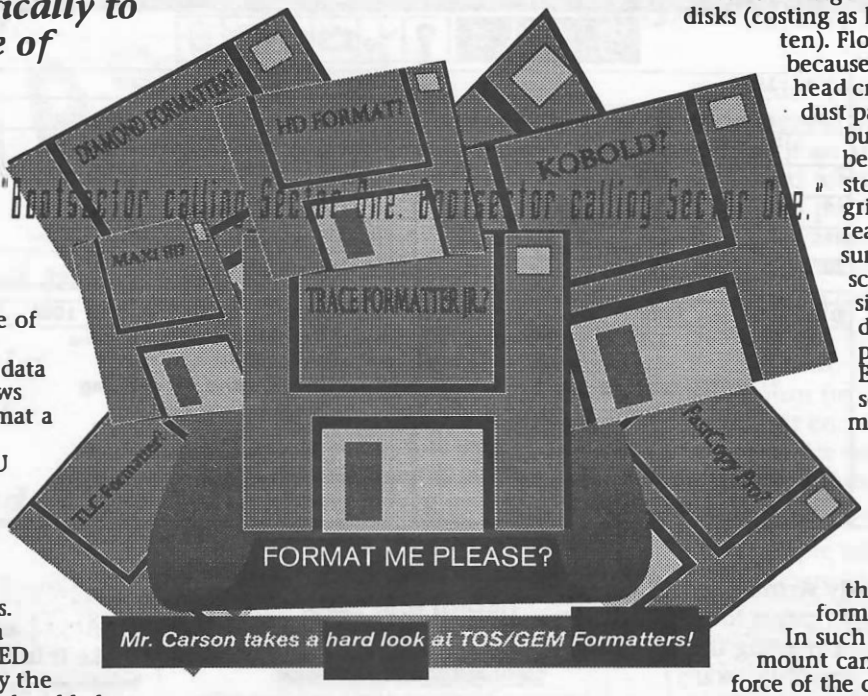
CalAppt has some limitations which make it inappropriate for serious business use: no advance notice of appointments, birthdays, or recurring events; insufficient space for long business or e-mail addresses, and some overseas phone numbers. However, if CalAppt is used strictly for daily and weekly scheduling, and as a general purpose P&A Book, it should serve the needs of a wide variety of people.

Try it out, in any case. It's Freeware now and widely available as a used package. It can even be found on some file sites, and in some disk libraries (without the small manual, obviously). Falcon owners please note that CalAppt won't run under Geneva without some 'flagging'.▲


***It takes a long time - at least it seems that way. But it has to be done . . . darn near every day, too. Formatting - yeech! Howard looks at the best formatters and the worst formatters. He also makes some cool comparisons.***

## OVERVIEW

***The following general notes relate specifically to the day to day use of floppy disk formatters, and the premise of this review.***




*Mr. Carson takes a hard look at TOS/GEM Formatters!*

First and foremost, this review was designed to determine which Formatter makes the most efficient use of your time. If every disk you format will eventually have data written to it, then it it follows that the time needed to format a disk is only half the story – THE SPEED AT WHICH YOU CAN WRITE TO THAT DISK, IS EQUALLY IMPORTANT. This review reveals some surprising differences in both format and subsequent write speeds. Accordingly, we developed a statistic called the COMBINED SPEED FACTOR: it is literally the time required to format a disk, added to the time it takes to write a fixed amount of data to the same disk.

Second, the subject of extended formatting: in particular, any format which goes beyond 10 sectors and/or 82 tracks for double density disks, or 20 sectors and/or 82 tracks for high density disks. There is always the temptation to cram as much data onto a floppy disk as possible, but the facts of the matter suggest avoiding such practice. While many people have experienced few (if any) problems with heavily extended formats, others have had frequent, disastrous results. The floppy disk manufacturers themselves, do not recommend extended formats primarily because of the unreliability of disk coatings close to the centre of the disk. Torquing forces exerted on the disk hub by the drive shaft, frequently cause microscopic distortions in the surface of the disk near the hub. That distortion can cause serious data loss beyond track 82. In addition, trying to cram more than 10 sectors onto such small diameter tracks can be an invitation to disaster. As a consequence, some floppy drive electronics are designed to attempt to place a greater number of sectors on the outer tracks, and a smaller number of sectors on the inner tracks.

Third, the quality of floppy disks is extremely variable, even within the same brand name. But there are quite a few 'no-name' and discount manufacturers which regularly produce very inexpensive and reliable disks. The Toronto Atari Federation purchases disks in bulk (as many as 800 at a time), for use in the 16/32 Bit Library. These particular no-name disks have a failure rate that is too low to mention. Even if a long storage life is required, it is highly doubtful that a premium quality disk (costing upwards of $14 per box of ten) will reliably maintain data for any more than 25% longer than regular quality disks (costing as little as $4 per box of ten). Floppy disks generally fail because of head crashes – and head crashes occur because of dust particles. Dust which builds up on a floppy disk because of improper storage can momentarily grind between the read/write head and the surface of a disk, causing scoring, data loss, and a situation wherein the disk can no longer be properly formatted. Extended formats sometimes reveal manufacturing flaws in floppy disks. For example, a short disk slot can cause a situation where the drive head actually bumps into the base of the slot when trying to format the innermost tracks. In such a situation, the head mount can actually be bent by the force of the collision, completely ruining the drive mechanism.

Fourth, long term data storage at home (or in a home office), has become the purview of floppy disks (although hard drives dedicated to backups are growing in popularity). If you're going to spend many hours out of your life formatting endless stacks of disks and doing backups of crucial data, don't bet hard earned money on the data lasting more than 8 years, even if the disks are kept in dust-free, cased environments. Research, letters to loved ones, legal information and other important details that have been stored electronically, must be transferred to new storage devices before the hardware needed to read the old media becomes impossible to find. Currently, there is no estimate of the number of businesses which have possibly crucial archival data stored on arcane media, that can no longer be read

by the systems these businesses currently have in place.

Fifth, despite claims to the contrary not all formatters do their jobs reliably, and not all disk copiers read different formats properly. REMEMBER THAT FORMATTING SHOULD ONLY BE NECESSARY WITH BRAND NEW DISKS. AT ALL OTHER TIMES, ENDEAVOUR TO CLEAR A DISK BY ZEROING, WIPING OR DELETING UNWANTED DATA. Zeroing, Wiping and Deleting are MUCH faster processes.

Sixth, once a disk has been formatted it should rarely have to be formatted again. Data written to the disk can simply be deleted in order to clear space. If bad sectors crop up, don't try to reformat the disk. Throw it away, recycle it as a coaster, use it to level the furniture or keep it for a bookmark. Floppies are dirt cheap, and it's inadvisable to risk valuable data to disks that have to be nursed along. Always keep a supply of formatted disks on hand.

## DEFINITIONS

Floppy disks are very simple things, that are nearly identical in function to audio and video tape cassettes – specifically, a ferrous (magnetizable) metal oxide coating which is bonded to a flexible plastic media. But while audio and video tape is spooled onto reels, floppy disks are made out of a slightly heavier version of recording tape which is stamped out in disks, rather than being sliced into long, thin strips. These disks have a hole punched in the middle, a slotted hub is mounted in the hole and the assembly is sandwiched in a thin plastic case. This case is also slotted. A spring-loaded metal shroud is affixed to the case, which covers this slot. The inside of the plastic disk case is lined with a low-friction pad, which prevents damage to the media surface as it is spun by the disk drive; the spinning brings different sectors to the open slot area, allowing required tracks and sectors to be accessed by the read/write head. When a floppy disk is placed in a disk drive, the drive shaft first engages the slotted hub of the floppy disk, while a retractor pulls back the metal shroud to expose the slot in the plastic case, and the recording media.

FORMATTING: A straightforward process: the read/write head applies a constant voltage (called the 'bias' voltage), to the particles bonded to the plastic surface. The particles are aligned symmetrically in concentric, sectioned rings delineating different tracks and sectors. Each ring is called a track and each section of a track is called a sector. Compatible operating systems look for tracks and sectors described in a certain standard way; that description is stored on track 1, sector 1 of the disk (usually referred to as the Boot Sector), in the form of a File Allocation Table (FAT).

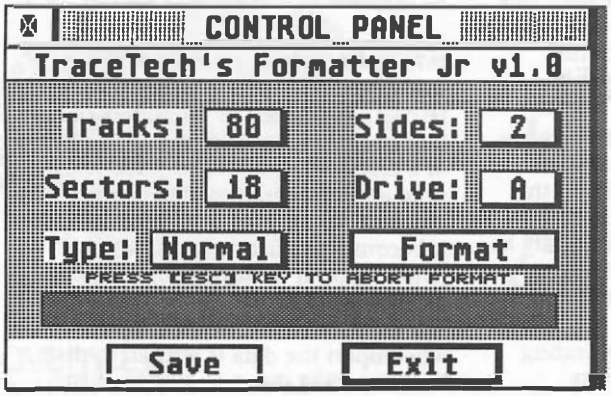
MEDIA CHANGE: The words are not mysterious. They merely denote their literal meaning: when a floppy disk (media) is removed from a disk drive and a new disk is inserted, a 'media change' has taken place. Not all software has the ability to detect media changes. This ability is absolutely indispensable when formatting a large stack of floppy disks. Having to force the software to recognize a media change (via mouse or keyboard commands), is an unreasonable, ridiculous bit of work, given the advanced state of modern software.

DISK LABELING has two meanings: the obvious printed-type label and the other (less obvious, but appropriate to this review) type - a title written to the boot sector of the disk. Such an electronic label is very useful when cataloging disks with a program like STDCAT (the same program used by the TAF 16/32 Bit Library). Some TOS versions do not react well to identical labels in successive boot sectors: switching disks and hitting the 'ESC' key, will cause TOS to read the label only, rather than the new FAT. This results in a situation wherein the contents of a disk can be accidentally overwritten or not saved. If you are using TOS 1.0 or 1.02, we strongly recommend an upgrade to at least TOS 1.04.

WRITE CACHING: Hard Disk Driver software (ICD, AHDI, Supra, HD Driver, HUSHI), is utilized to set aside a small block of RAM, equal to the data capacity of a certain number of disk sectors. Every time a write operation is performed, the block of data is held in RAM until either it becomes the least recently used (whereupon it is written to disk), or a delay (anywhere up to 1 second – you can set the delay yourself) elapses, whereupon the data is written to disk. Write caching presents problems in situations where a system is reset (or crashes or locks up), before cached data is written to disk. We do not advise the use of Write Caching; the minor improvement in system performance is not worth the potential trouble.

WRITE VERIFY: Hard Disk Driver programs (ICD, AHDI, Supra, HD Driver) or data copying programs (Kobold, FastCopy Pro, etc.), are utilized to compare blocks of data written to disk against an exact RAM image of that data – the RAM image created before the data was written. Any discrepancy results in a write failure. A Write Verify buffer may be installed in RAM with Hard Disk Driver software, and should be equal in size to the largest data block normally written. Write Verify is of dubious value given the excellent baseline quality of modern hard drives and hard drive electronics. PLEASE NOTE – because Write Verify operations require that a data block be written to disk and then read back for comparison, write verification can often result in the majority of hard drive writes being slowed by 50%! OWNERS OF OLDER HARD DRIVES & FLOPPY DRIVES (MANUFACTURED PRIOR TO 1992), SHOULD USE WRITE VERIFY. We cannot dictate the manner in which you use your software and hardware, insofar as safe practices are concerned. Test your system and review your history of

***. . . we developed a statistic called 'Combined Speed Factor': it is literally the time required to format a disk, added to the time it takes to write a fixed amount of data to the same disk.***




Read/Write failure, to determine which settings are best for you.

DD = Double Density, standard format capacity is approximately 726 kilobytes.

HD = High Density, standard format capacity is approximately 1.4 megabytes (1,400 kilobytes).

## TESTING

All formatters were tested on all of the test computers: TOS 4.04 Falcon, TOS 3.06 TT, TOS 2.05 Mega STe, and a TOS 1.04 STfm. All the computers (except the Falcon) had 4 megabytes of RAM and SCSI hard drives. The Falcon was equipped with 14 megabytes of RAM. The data transfer rate differences across the various DMA and SCSI ports, and the varying hard drive access speeds, were not statistically significant enough to affect overall product ratings. The tested software appeared to be stable on all versions of TOS from 1.04 to 4.04 except where noted. READ ALL DOCUMENTATION SUPPLIED WITH THE SOFTWARE.

All tests centred around formatting speed & the speed at which the formatted disks accepted data during write operations. THE FORMAT TIMES GIVEN ARE THOSE REQUIRED TO INITIALIZE THE DISK, WRITE THE LABEL, PERFORM THE FORMAT PROCESS, LIST THE TOTAL NUMBER OF BYTES AVAILABLE AND RETURN CONTROL TO THE OPERATING SYSTEM. All disk write tests were performed with Kobold – it was used to write either 700k to DD disks, or 1.4 megabytes of data to HD disks. THE WRITE TIMES GIVEN ARE THOSE REQUIRED TO READ THE SPECIFIED DATA INTO RAM, WRITE IT TO THE BLANK FLOPPY DISK, WRITE THE FAT, AND RETURN CONTROL TO THE SOFTWARE. While all programs were tested on all the machines listed above, the results in this review were taken from the data provided by the TOS 4.04 Falcon. Format times for the specified software did not vary significantly from machine to machine. However, because data is being transferred (and has to be read and written), TOS versions and hardware versions have a noticeable effect on write speeds. But the differences are machine specific, and therefore the statistical references are completely valid. In other words, a formatter that wound up in 3rd place on the Falcon, was also in 3rd place on the ST. Please note that WRITE VERIFY was turned off whenever possible, to achieve the fastest formatting speeds. Some programs, notably TOS & Harlekin 3, had no option to turn off Write Verify.

Five criteria were applied to judge each formatter:

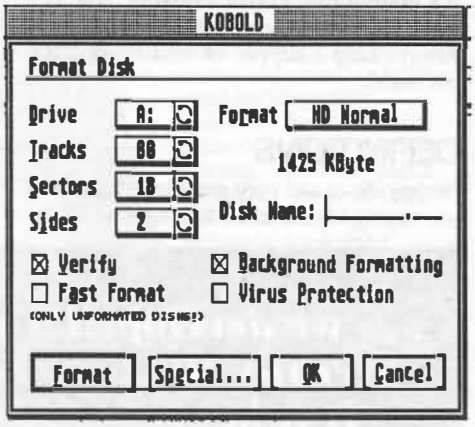
1 – Formatting speed at 80 tracks, 9 and 10 sectors per track for double density disks; 80 tracks, 18 and 20 sectors per track for high density disks. All disks were formatted to be MS–DOS compatible.

2 – Write speed to the formatted disks: 700 kilobytes written to double density disks and 1.4 megabytes written to high density disks. Twister, Super Twister, Super Fast & other speed up options were used whenever available; anything the software documentation claimed would improve write speeds.

3 – Stability. We determined whether the formatters properly detected DD and HD drives, how well each one ran on different machines and TOS versions, and whether all options worked as advertised. We also looked for wipe, zero or delete features.

4 – Ease of use: 1 = Easiest, 5 = Hardest. None of the tested software was judged particularly hard to use.

5 – COMBINED SPEED FACTOR (CSF). *THIS IS THE MOST IMPORTANT CRITERION OF ALL*. It is simply the COMBINED TIME NEEDED TO FORMAT AND WRITE TO A DD DISK OR AN HD DISK. The results may surprise you. THE LOWER THE NUMBER, THE BETTER. For those who have DD drives only, look at the 'DD CSF'. For those who have a High Density drive, look at the 'Dual CSF'. Remember that every disk that is formatted will eventually have data written to it. Some faster formatters only provide the ability for data to be written to the disk at slow or medium speeds, while some slower formatters often produce disks with a very high write speed. THE FORMATTING SOFTWARE WHICH PROVIDES THE LOWEST COMBINED NUMBER IS OBVIOUSLY THE BEST CHOICE, BECAUSE IT MAKES THE MOST EFFICIENT USE OF YOUR TIME!



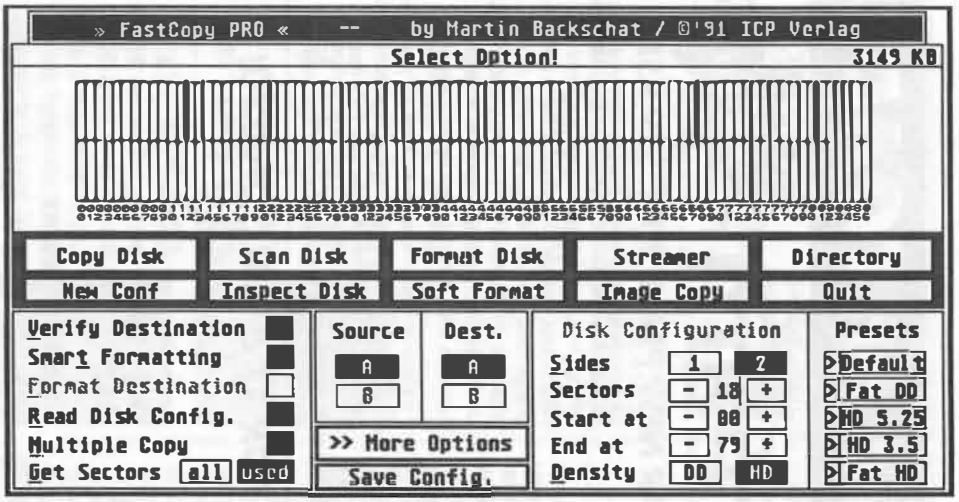

## TEST RESULTS

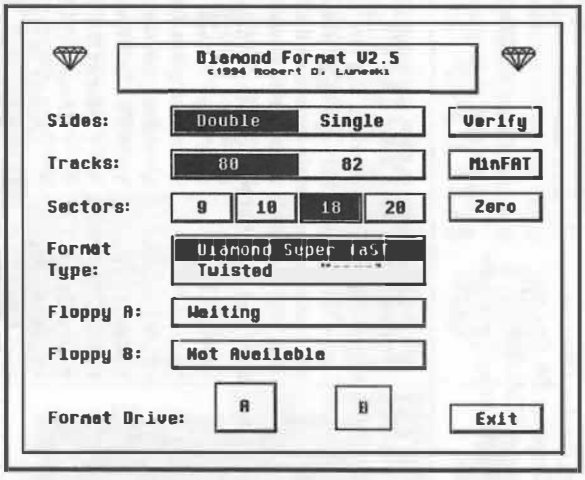
TOS FORMATTER. This formatter is built into every Atari computer. It is selectable from the File Menu in the GEM desktop only. It provides no selectable extended formats of any kind. Formatting is extremely reliable, creating disks which are always recognized by disk copiers and disk/file utilities like Kobold, FastCopy Pro & Maxifile III. The formatting process cannot be interrupted with a keyboard or mouse command. The TOS Formatter defaults to double density, even on the Falcon (with its standard high density drive), and must be switched using the mouse. The TOS formatter is the second slowest of all the software tested. It provides disk labeling. However, write speeds were better than average. TOS is a slow formatter overall, but it is definitely surpassed in general uselessness by Harlekin 3 & Maxifile III. Ease of use = 1. DD FORMAT – 100 SECONDS, WRITE

700K – 40 SECONDS. HD FORMAT – 110 SECONDS, WRITE 1.4 MEGABYTE – 45 SECONDS. DD CSF = 140. HD CSF = 155. Dual CSF = 295.

TRACE FORMATTER JR. This is the latest incarnation of an old program. The original was written many years ago and released as a Double Click Software 'Program of the Week'. This newest version is available as part of Trace Technologies' Falcon030 ToolKit Shareware package. It runs only as a CPX and should be placed in the CPX Folder which is accessed by Atari's XCONTROL Panel. It is one of the fastest formatters currently available, and creates disks which are recognized consistently by Kobold, FastCopy Pro & Maxifile III. It provides for disk labels, extended formats and will also save its current configuration – which will allow you to configure the formatter and save your favourite settings. The formatting process can be interrupted at any time by pressing the ESC key. Write speed is average. Ease of use = 2. DD FORMAT – 67 SECONDS, WRITE 700K – 60 SECONDS. HD FORMAT – 67 SECONDS, WRITE 1.4 MEGABYTE – 65 SECONDS. DD CSF = 127. HD CSF = 132. Dual CSF = 259.

KOBOLD 2. This product is a potential marketplace successor to (the now discontinued), Maxifile III. Kobold provides file management as well as formatting, attribute changes, extensive backup features and other options. It still lacks several key features found in Maxi, however. Kobold can delete data from disks at an incredible speed. It is sold as a stand–alone commercial product and has been available in North America for about 18 months. It runs as a desk accessory or program. It provides for a large range of extended formats, is fully configurable, and provides disk labeling. The ESC key will abort the formatting process at any time. Overall, Kobold appears to be very fast and very reliable. It should be noted that Kobold was not perfectly stable on the Falcon. It also only recognizes media changes (according to the manual) through the use of a mouse command, or an undocumented keyboard shortcut: ALT + SHIFT + A (or B, if you have two floppy drives.) Kobold also creates disks which are not consistently recognized by FastCopy Pro & Maxifile III. Media change oddities and format recognition problems are serious flaws in a commercial program of this type, and seem to have been remedied in Kobold 3 (which was unfortunately unavailable for review). Kobold also evinces one other obvious, irritating bug: it recognizes most formatted disks presented to it, but often apparently refuses to copy over a full disk's worth of data to them. Kobold reports that the disk does not have the capacity to accommodate the copy operation, resulting in situation where the block to be copied has to be reduced in size. Initially we thought this problem resulted from poor formatting. However, the actual cause stems from the fact that Kobold does not accurately report file sizes – our 712K test block of data (as tallied by Kobold) actually turned out to be 727K in size (as reported by the GEM desktop & Maxifile III)! Ease of use = 4. DD FORMAT – 68 SECONDS, WRITE 700 K – 37 SECONDS. HD FORMAT – 68 SECONDS, WRITE 1.4 MEGABYTES – 70 SECONDS. DD CSF = 105. HD CSF = 138. Dual CSF = 243.




MAXIFILE III. Maxifile III is still going strong, but its formatting routines have been legitimately surpassed in speed, by many of the other products in this review. Maxi III is available as a commercial product from most Atari merchants and can still be ordered from Codehead Technologies (although it is no longer under development). Codehead no longer develops TOS/GEM software of any kind. Maxi III runs as an accessory or program. It does not have a facility to either detect or format high density disks & one of its file management features (Folder Deletion), will not work on the Falcon without a special Auto Folder program (TOS4TRAP). Maxi is a very slow formatter and produces disks which write extremely slowly – the slowest of all those tested. It's DD formatting is configurable, providing extended formats, labeling and other features. Please note that Maxifile III is still an excellent hard drive file management & housekeeping program, despite the shortcomings of the formatting section. Maxifile has a reasonably quick delete routine. Ease of use = 3. DD FORMAT – 98 SECONDS, WRITE 700K – 100 SECONDS. DD CSF = 198. NO DUAL CSF AVAILABLE.

FASTCOPY PRO. The venerable FastCopy Pro is still the champ in the formatting speed sweepstakes. It is a commercial program that is available as a stand alone product from most Atari merchants. It runs as an accessory or program. It features several file management options

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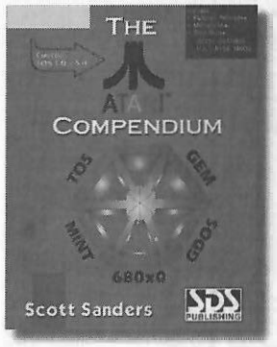


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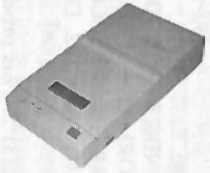

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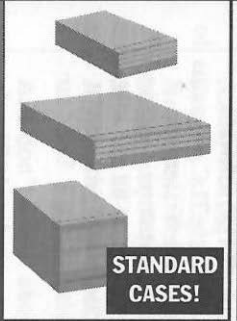

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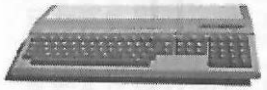

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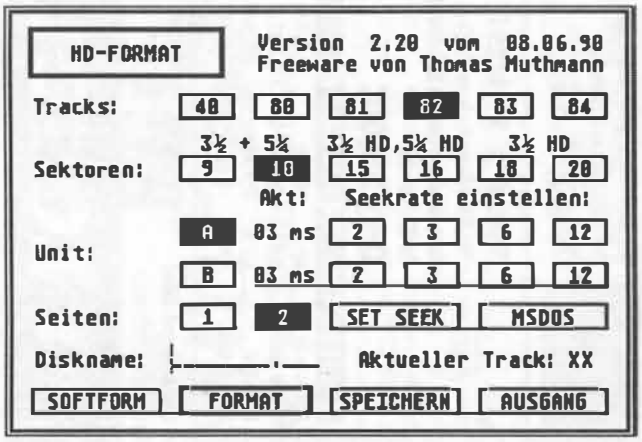
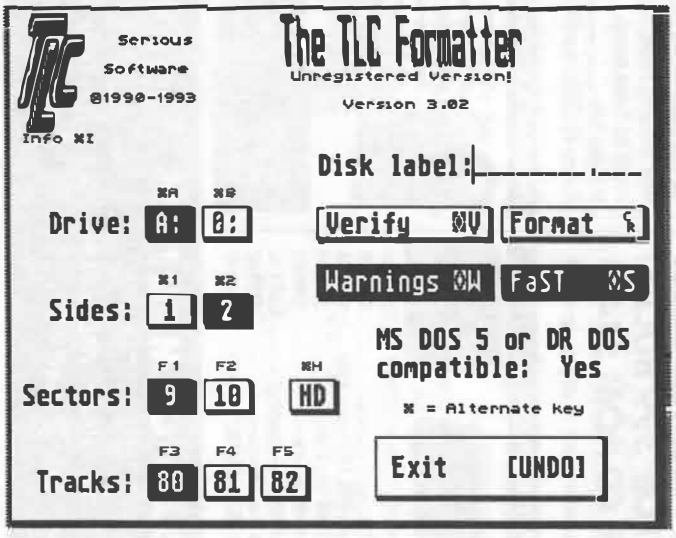



including hard disk backup (streaming) capabilities. High Density formatting is available, although somewhat flaky on the Falcon in some modes (Optimized & TOS), stable in others (MS-DOS). The program also has stability problems on the TT. Disk labeling is available. DD & HD formatting speeds are identical, and very fast. The formatting process can be interrupted at any time by hitting the ESC key. Write speeds are exemplary and rank as the fastest overall. Falcon owners should note that FastCopy Pro will only copy disks on the Falcon, after the CPU Cache has been turned off in XCONTROL Panel. Ease of use = 3. DD FORMAT - 63 SECONDS, WRITE 700K - 37 SECONDS. HD FORMAT - 63 SECONDS, WRITE 1.4 MEGABYTE - 45 SECONDS. DD CSF = 100. HD CSF = 108. Dual CSF = 208.

DIAMOND FORMATTER. This formatter from Oregon Research is supplied with Oregon's superb Diamond Back 3 program, as a little extra in that excellent commercial package. It is Troutware, which means that regular users of Diamond Format should really send Bob Luneski a fly that he can use for Trout fishing. It is an excellent, medium speed formatter. It's also good looking, and will take advantage of the enhanced look of AES 3 and 4. Diamnod formatter will run as an accessory or program. It provides excellent stability on all machines, and in all resolutions. It also provides disk zeroing (*real* fast data deletion) and something called MINFAT, which causes the formatter to create the smallest possible (and therefore most efficient), File Allocation Table (FAT). It formats DD disks that allow the absolute fastest DD writes. Ease of use = 2. DD FORMAT - 85 SECONDS, WRITE 700K - 27 SECONDS. HD FORMAT - 85 SECONDS, WRITE 1.4 MEGABYTES - 58 SECONDS. DD CSF = 112. HD CSF = 143. Dual CSF = 255.

HARLEKIN 3. You can grow old waiting for Harlekin to format a floppy disk. The formatted disks actually write at average speed, however. Like Diamond Format, Harlekin provides for the smallest possible FATs, although that doesn't appear to optimize Harlekin disks at all. Harlekin 3 is commercial software that is designed to run as an accessory. It should also be noted that disk formatting is only a very tiny part of this program's capabilities. Harlekin is a full-blown personal information manager, system manager and monitor, a replacement for XCONTROL or CONTROL Panel, a keyboard utility and more. It was stable on all TOS versions and all computers tested, although a few bugs are still in evidence when it is running on the Falcon. Disk labeling is provided along with automatic detection of high density drives. Ease of use = 2. DD FORMAT - 130 SECONDS, WRITE 700K - 43 SECONDS. HD FORMAT - 130 SECONDS, WRITE 1.4 MEGABYTES - 53 SECONDS. DD CSF = 173. HD CSF = 183. Dual CSF = 356.




HD FORMAT. This middle-aged Freeware program from Germany does a creditable job of formatting. Although the formatting speed itself is very average, the disks (DD or HD) produced by this formatter can be written to, at a high rate of speed: the fastest HD write speed, and the third fastest DD write speed. The software runs as a program or accessory, can be configured for extended formats, provides proper disk labeling & variable drive seek rates. It performed reliably on all test machines. The program can be found on several CD-ROM software collections, most BBS file areas and the TAF library. It's original German interface has been translated and uploaded by Lorant Oswald & Howard Carson. Ease of use = 2. DD FORMAT - 83 SECONDS, WRITE 700K - 36 SECONDS. HD FORMAT - 83 SECONDS, WRITE 1.4 MEGABYTES - 39 SECONDS. DD CSF = 119. HD CSF = 122. Dual CSF = 241.

UNIVERSAL ITEM SELECTOR III. UIS provides built-in formatting, within its file access and housekeeping functions. It is a basic formatter, which manages DD disks only. UIS III remains a fine replacement file selector though it is definitely in need of an upgrade and a facelift. The formatter has provision for extended DD formatting only. UIS III is a stand-alone commercial program which runs out of the Auto Folder and the latest version (v3.32), appears to be fully compatible with all tested machines, in all resolutions. It is available from most Atari merchants or directly from Application & Design Software. Ease of use = 2. DD FORMAT - 97 SECONDS, WRITE 700K - 40 SECONDS. DD CSF = 137. NO DUAL CSF AVAILABLE.

TLC FORMATTER 2. Tom Hayslett coded this little item as an addition (one of many!), to his TLC line of Shareware. Tom no longer codes TOS programs, and his entire TLC lineup (including this excellent formatter) is now handled by Jeff Wisniewski (GEnie: J.Wisniewski). Jeff is continuing development, and of course is accepting Shareware registrations for all TLC software. Although many of the TLC programs do not work on all TOS versions or resolutions, TLC Formatter happens to work extremely well on all the machines tested. It functions as a program or

accessory. It is available from the TAF library and most BBS's and on-line Atari file areas. It provides limited DD and HD extended formats, disk labeling, the ability to switch Write Verify, and a Fast Format option. The ESC key will interrupt the formatting process at any time. Ease of use = 1. DD FORMAT - 82 SECONDS, WRITE 700K - 33 SECONDS. HD FORMAT - 82 SECONDS, WRITE 1.4 MEGABYTES - 40 SECONDS. DD CSF = 115. HD CSF = 122. Dual CSF = 237.

## CONCLUSIONS

FASTCOPY PRO IS THE OBVIOUS COMBINED WINNER WITH THE LOWEST DUAL CSF OF 208. It is unfortunately flaky on the Falcon.

The TLC Formatter is the next best with a Dual CSF of 237. HD Format is a very close third with a Dual CSF of 241. Kobold is also a contender with a Dual CSF of 243. Kobold is conditionally recommended if all-purpose, high speed file management is required, in addition to above average formatting speed. But the program is very expensive, sports at least one design flaw and is definitely buggy.

The 'I'm Useless' award goes to Harlekin 3, with a Dual CSF of 356! Harlekin has many virtues, but floppy disk formatting is not one of them. Maxifile III is also pathetically slow (potentially slower than Harlekin), but since Maxifile can't do HD disks, a full, fair comparison CSF can't be shown. Like Harlekin, Maxifile III has a lot of other virtues, but neither program is recommended for formatting alone.

For occasional use, the Trace Formatter CPX is probably the ideal utility with a Dual CSF of 259. Because it is a CPX, it takes no RAM except when actually being used. If you're willing to sacrifice a small amount of RAM for an 'occassional use' formatter, take a good look at Diamond Format in ACC mode.

DOUBLE DENSITY ONLY: Kobold and FastCopy Pro tied for first place with nearly identical (and very fast!) DD CSF's of 105 & 100 respectively. HD Format, TLC Formatter and Diamond Formatter were virtually tied for second place with DD CSF scores of 119, 115 & 112 respectively. All three are recommended.

HIGH DENSITY ONLY: FastCopy Pro turned in the fastest HD CSF with a score of 108. TLC Formatter & HD Format were tied for second place with identical scores of 122. All three are recommended. ▲

***What's a Hard Drive? What's a Cache? What's a Buffer? Are these questions related? Do we have to care? Will any of this hog my RAM? What's an onboard Cache? When is a Buffer really a Cache? When is a Cache really a Buffer? Are THESE questions related? PLEASE don't hog my RAM!***

***OK . . . We spend a good portion of our computing time optimizing our systems. It doesn't matter what we're *supposed* to be doing (wordprocessing, desktop publishing, drawing, MIDI, image processing, document processing, etc.). There is always a wish for more speed. The careful, effective use of Caches and Buffers can frequently provide improvements in system performance that are worth the time and effort required to set up these sorts of things.***

# To Cache OR NOT this is the question!! to Cache?

## Howard Larson and Harvey Wolfe go Caching . . .

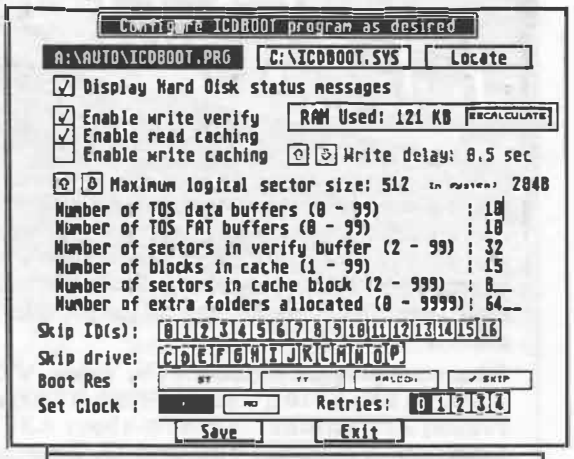
At the outset, let's note that Caches (of any type), are much more important on a PC than an Atari. On a PC, portions of programs are constantly loading and unloading whereas on an Atari, entire executable programs are loaded into RAM in one complete, accessible chunk. On an Atari it is also most important to cache the Directories and FATs because otherwise, you will experience significant hard drive slowdowns as the drive fills up (although it becomes less of a problem with the newer versions of TOS: 3.xx to TOS 4.xx].

The following overview is going to provide some surprising details. The most surprising one is less a matter of common sense than it is a matter of technological advancement, and it goes something like this: 'If you have a large, new hard drive (made in the last couple of years, say, since 1993), and if the drive has an onboard Cache (or Cache Buffer) of 128 kilobytes or more, and if the average Seek Time is faster than 17 milliseconds, and if your TOS version is 2.05 or higher, chances are you really don't have to bother with any sort of Software Cache.

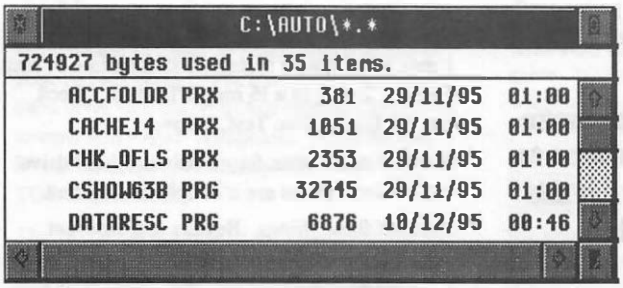
On the other hand, if you're using a TOS version of 1.62 or earlier (TOS 1.0, 1.02, 1.04, 1.60), an Atari Megafile (MFM or RLL) hard drive or an old IDE drive (in your STacy), or even one of the SCSI drives manufactured prior to 1993 (20–40 millisecond access time), chances are that a Software Cache can speed up your work considerably.

On yet another hand (three hands?), the combination of one of the newer, faster SCSI drives with one of the older TOS versions, often results in a situation where a minimal Software Cache is very useful. Older drives rarely taxed the (older) TOS speed limits, but with the newer drives, Seek Time and Data Transfer (see definitions, below), increases dramatically (compared to older drives!) when accessed by TOS 1.0 and 1.02 (you *must* use FATSPEED.PRG in your AutoFolder), or when using TOS 1.04–1.62 straight up.

On still another hand(!), even TOS 3.06 to 4.04 (TT & Falcon TOS), will slow to a pathetic crawl, when asked to access the older MFM, RLL or IDE drives – the drive's throughput just doesn't reach the speed of the TT & Falcon Data Buses. A Software Cache will help, but often needs to be so large (512 kilobytes or more), that available RAM is adversely affected. The best recent example is a TOS 4.02 Falcon, with 4 megabytes of RAM and the (nearly) 3 year old, 65 megabyte Connor IDE internal hard disk, running Calamus SL. A 256 kilobyte Software Cache works extremely well. But if you're running Calamus SL on this setup in 640x480x256 colours (which uses up approximately 2 megabytes of RAM + the Cache of 1/4 meg = 2.25 meg), along with XControl Panel and 1 other Accessory (say, EditPlus/EdHak or Edith Professional for text editing, because Calamus's own PKS Write is somewhat outdated), you'll be poking away at only about 1 megabyte of free RAM. 1 meg of




***The familiar ICD configuration screen in HDUTIL.PRG. Take a look at look at the cache settings . . .***




***That's it . . . in the Auto Folder, 2nd from the top. Change the size by changing the name. Simple Atari . . .***

RAM may seem like a lot, but since Calamus SL *loves* contiguous RAM (memory that isn't broken up into scattered chunks), it is quite likely that frustration, extremely slow operation and even the odd lock up, is just around the corner. If you also happen to be running an Auto Folder program such as NVDI (to speed up screen redraws, scrolling, etc.), the RAM overhead will be even greater.

So what's the point? Well, first and foremost, understanding the foregoing limitations will reveal which pieces of your system need replacing or upgrading. Second, the foregoing should also give you some idea of where to start, when Software Cache testing actually begins. Third, putting together the right combination of hardware and software can often evince some really delightful speed increases: Reading files into RAM, Saving files to a disk (hard or floppy disk), Searching for file data, Recording music onto a hard disk, Cutting and Pasting from the Clipboard, and any other operation that requires access to your storage media, or the data on which you're working.

## A few definitions are in order . . .

Hard Disk: literally, a thin, hard Aluminum disk (usually less than 1 millimeter thick), with a magnetized coating of oxidized metal (iron, chromium, etc.). When a disk is formatted, it is magnetically divided into concentric rings called Tracks. Floppy disks are made of a flexible plastic, covered with the same sort of oxide coating. Each circular track is divided into sections called Sectors. A typical Double–Sided, Double Density floppy disk is formatted to 80 tracks, with each track divided into 9 separate sectors. Each sector can accommodate 512 bytes of data. 9X80x512x2(sides)=737,280 bytes. If you subtract a few thousand bytes for the Boot Sector and the File Allocation Table (FAT), what's left is closer to about 730 kilobytes worth of data storage. High Density floppy disks literally double the storage capacity (80 tracks on each side, subdivided into 18 sectors per track). Hard disk capacity is calculated in a similar manner. The actual disks in a hard drive are usually refered to as 'Platters'. Hard disks make use of some funny formatting methods. Sometimes for example, there will be a greater number of sectors on the tracks near the outer edges of each platter.

Data is recorded on disks by means of a magnetic signal applied by a tiny Read/Write Head (or if you prefer, a Record/Playback Head). The location of specific blocks of data (text files, images & MIDI recordings, for instance), is maintained in the FAT. Every formatted disk has a FAT. If there is no usable data on a disk, the FAT is simply empty.

***Beware: "Most ads in computer magazines quote Seek Time, though they often claim to be quoting Access Time."***

The read/write Head (in a hard drive) moves in a arc (much like a Tone Arm traversing a record) across the platters, from the outer edge to the centre, and back again. The head (or heads, in a multi–platter mechanism), is driven by an Actuator Motor (so–called because it is actuated by read/write commands. The platters are mounted on a central spindle and spun by another motor. The two way action between the head (which is traversing the disk), and the Platter (which is spinning), creates a situation where a particular area of the disk's surface can be quickly located (for a read or write operation). Floppy disks can be spun at up to 310 RPM, and traversed by the head at up to 12 meters per second. Medium to large size hard drives spin at 4500 or 5400 RPM (this Spindle Speed or if you prefer, Rotational Speed), is measured at the spindle, not at the outer edge of the platters. Extra large hard drives should spin at 7200 RPM.

Seek Time: the time it takes the drive to move its read/write Heads across the platters to a requested track. Smaller SCSI drives (60 to 120 MB) should provide seek times of 20 to 40 milliseconds. Medium SCSI drives (120 to 540 MB) should do as well as 12 to 17 milliseconds. Large capacity SCSI drives (540MB to 1 GB+) should provide seek times of 8 to 10 milliseconds.

Latency: specifies the average time it takes to spin the platters until requested portions of a track are spining under the Head. Look for latency times of 5.6 milliseconds for 540MB to 1GB drives, and 4.2 milliseconds for drives larger than 1GB.

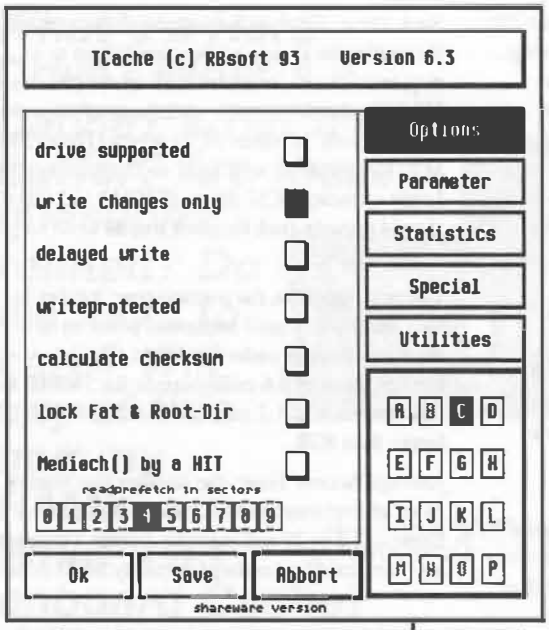
Average Access Time: the number that results from adding average seek time and latency. Expect 12.2 to 20 millisecond Access Times, in any new, medium or large capacity SCSI drive.

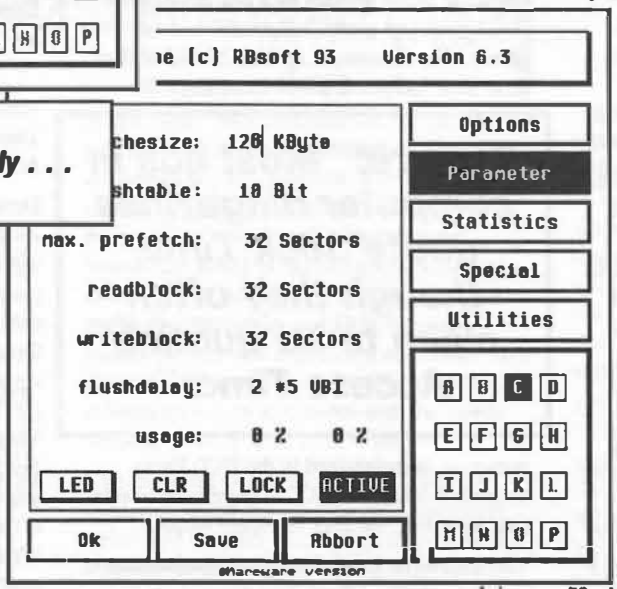
Many ads in computer magazines quote Seek Time, though they often claim to be quoting Access Time.

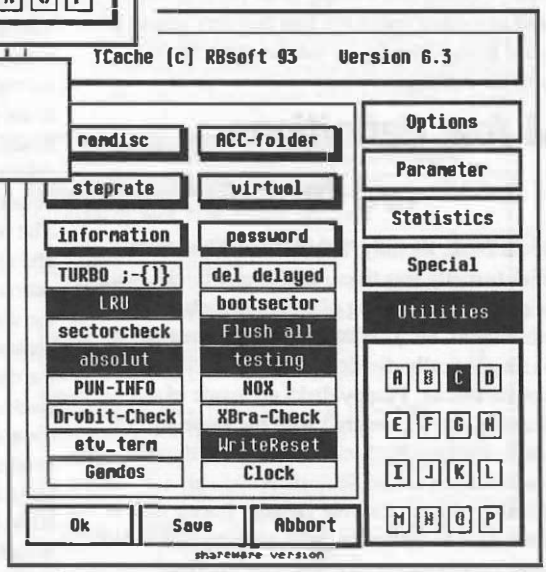
Data Transfer Rate: also called throughput, specifies the rate at which data is read from or written to the drive, once the heads are positioned. Applications which mainly read data sequentially (such as Business and Graphic Arts programs), are the ones most significantly affected by data transfer rate (DTR). The rate is often specified in Megabytes Per Second (MBps), or Megabits Per Second (Mbps). There are two main kinds of DTR: Burst DTR (also called External DTR), and Sustained DTR (also called Internal DTR). Burst specifies the rate at which data is read from the Hardware Cache (see below). SCSI 1 and SCSI 2 drives have burst DTR of between 5 and 40 MBps. Sustained DTR specifies the performance when the hardware cache is not being used – when you're downloading a particularly large file, for example.

***Although some DTR specifications are spectacularly high, getting the data from the drive into your system RAM is often much slower. That's because the data has to be funneled into your system RAM across the ST's Data Bus, which doesn't operate anywhere near 5 MBps, hence a bottleneck. TT's, Falcons and enhanced Megas have higher capacity buses, and can more closely match the enormous DTRs of the latest drives.]***

Hardware Cache: a chunk of RAM (anywhere from 64 kilobytes to 4 megabytes of RAM chips), that is integrated with the Hard Disk




***TCACHE has an absolutely . . .***

***amazing assortment . . .***

***of nifty, cache utilities . . .***

Controller. This chunk of RAM is usually part of the RAM Buffer built in to the controller.

Software Cache: a chunk of your system's main RAM, reserved for disk caching and controlled by some sort of utility, or accessory program (HD Util, TCache, Master Cache, Cachennn, etc.).

Hardware and Software Caches work pretty much the same way: when it's time for a disk read, the operating system screens the request first to see if the data is already in the Cache. If the data is there (that's called a 'Hit'), the cache sends the requested data to the program without involving the disk. TOS 1.0 to 1.02 do not incorporate system calls which automatically look for the presence of a hardware or software cache, which means that software cache utilities have to be smart enough to interrupt calls for data at a very low level (early in the process), in order to be effective. In any case, this is called Read (or Read–Through) Caching, and it can increase performance dramatically.

Write (or Writeback) Caching stores data to be written in RAM, and only writes it to a disk, when the disk becomes idle or after a preset amount of time has passed without any other input. Write Caching can also improve performance, though not as dramatically as read caching. Write caching carries risk: if you crash, lockup or lose power before data is written to disk, it will be permanently lost, even if you've done a save!

***If you're going to use write caching, it is a wise idea to invest in an Uninterruptible Power Supply (UPS).***

In most ST/STe/Mega systems, software caches tend to provide faster system performance, primarily because data transfer is faster across the memory bus than across the data bus. In higher–end systems ('030 accelerated Megas, TT's and Falcons), reliance on hardware caching (found on the larger hard drives), is likely to provide greater benefits.

Allocating RAM for a cache can be a delicate process. You want to provide enough to ensure lots of hits, without taking so much that other system functions cannot proceed properly. A RAM cache that is twice the size of the largest file you mormally load is a good place to start. If the largest text file you work with is 50 kilobytes, a cache of 100 kilobytes is more than sufficient; a reasonably small burden on a 2.5 megabyte system. If you have the luxury of 4 megabytes (or more) of RAM, consider experimenting with as much as one eighth of your RAM for Cache (256k in a 4 meg system, 1 meg in an 8 meg system, 1.75 meg in a 14 meg Falcon, 2 meg in a 16 meg TT, etc.). Check out the Cache Size Test, below.

Buffers: most often found onboard hard drive controllers. There are a couple of different kinds of these things. Buffers are different from caches. While a cache stores data that has been read or written, a buffer stores data from sectors adjacent to the data that was requested, anticipating that it will be requested next.

Segmented Buffers are buffers which are divided into smaller sections in order to store greater numbers of adjacent (or consecutive) sectors. Adaptive Segmented Buffers are dynamic versions (of segmented buffers), which actually have the ability to expand or shrink the number of segments – depending on average demand during any particular series of reads. Buffers tend to be smaller (because of the nature of the data they need to store), and can be effective from sizes of 64 kilobytes up to about 512 kilobytes.

Another fundamental difference between caches and buffers is that a cache can differentiate between directories and FATs on the one hand and data on the other hand, while a buffer normally can't tell the difference.

All of the preceding relates to Atari, PC

and MAC computing. You need this information in order to make effective use of your buying power, when next you purchase a hard drive in a marketplace oriented primarily toward non–Atari computers. What follows however, deals specifically with Atari TOS/GEM needs.

The two most popular Hard Disk Drivers (those small SYS files: either ICDBOOT.SYS or SHDRIVER.SYS, found on the Root directory of your Boot Drive, originate with ICD Inc and Atari Corp. There is a third, superb driver called HDDRIVER; it's not very well known in North America, but is very popular (and highly touted), in Europe. We won't get into HDDRIVER here, but there *will* be a full, fascinating review in the next issue of CN. In any event, the vast majority of TOS/GEM users utilize either AHDI/HDX or ICD.

The ICD driver software is available in two versions: a freeware one (ADSCSI Utilities), and the commercial 'ICD Pro' version. The Atari driver (known as AHDI; the acronym stands for Atari Hard Disk Interface) is freeware and the latest version of the complete AHDI set (which includes HDX, a utility for formatting, partitioning, and cold booting), is AHDI504c. The ICD driver comes with something called HDUTIL.PRG which has several options for setting up software caches. The Atari driver does not come with the same sort of configuration utility. However, a freely available sofware cache utility called CACHEnnn.PRG (also issued originally by Atari Corp.), does a competent job of setting up a software cache. A second utility (also freeware) called HD_PATCH.PRG, may be used to further configure the Atari driver.

***There is some debate about whether the ICD driver is better (and faster at disk access), than the Atari driver. There is also great debate about which driver is more broadly compatible with the huge spectrum of software & hardware that is currently available, and about which driver makes the most efficient use of Software Caches and Hard Drive Cache/Buffers. There is some debate too, about how the law of diminishing returns applies, for example: huge caches and buffers do *not* necessarily improve system performance. The debates have been resolved, although only in general terms . . .***

1 – The ICD driver (with its cache optimally set), is faster than the Atari driver when used with TOS 1.0 and 1.02 and almost any hard drive. TOS 1.0 and 1.02 are extremely slow when writing to a partially full hard drive. As the drive fills up, Writes slow down considerably. The Auto Folder program FATSPEED (available from the TAF Library), replaces the Atari code in TOS and ameliorates the problem. TOS 1.04 is highly recommended as an upgrade.

***However, a new operating system such as the MagiC software, will set you back the same amount of money as a TOS 1.04 upgrade, and provides all of the speedups, and an enormous wealth of other options (including multitasking).***

2 – The Atari driver (with CACHEnnn.PRG set optimally), is demonstrably equal in speed to the ICD setup, when used with TOS 3.06 to 4.92 and the older Megafile and SCSI1 drives mentioned above.

3 – The ICD driver does not demonstrate any speed advantages however, when used with TOS 3.06 to 4.92 and the newer SCSI2 drives. In this situation the drivers and software caches are nearly redundant, because of the presence of superb, high speed cache/buffers onboard the hard drive controller. For most purposes, it seems wisest to reduce your software cache to an absolute minimum, and try to detect any slowdown in system performance.

4 – Always use CACHEnnn.PRG with the AHDI. Always use ICD's own caching when using the ICD driver.

In order to set up the ideal sized software cache, the recommended testing method is as a follows:

A – Set up a temporary folder. Make sure your software cache is enabled (reboot if necessary, to make sure). Also, if you're using CACHEnnn.PRG, rename it to CACHE10.PRG to start off the tests (that's a small cache). If you're using ICD's software, use the defaults. Use a stopwatch to time how long it takes TOS to copy 200 files to the temporary folder. Then, use the stopwatch to time how long it takes TOS to Delete all of them. Make note of both times.

B – Disable your software cache, reboot, and do the same test. Use the exact same files!

If your 'A' time is faster, it means your software cache is having some beneficial effect. Increase the size of the Cache by 50%, reboot, and start the test all over again. If you get faster results and you still haven't used up one eighth of your available system RAM, increase the Cache size again (another 50% – but not a total greater than one eighth of your RAM). If after increasing the size of your cache the first time there is no speed improvement, reduce it by 50%. The idea is to determine the optimum cache size; the size at which no further speed improvements take place. When performing the tests, use the exact same files every time.

If your 'B' time is the same as the 'A' time, it means that RAM you've set aside for your software cache is a total waste. This situation is most likely to occur when your system is booting into one of the newer, faster hard drives, with their onboard Caches and adaptive, segmented buffers.

It is important to remember that the optimal cache size determined by the tests, will not provide the fastest data access/retrieval times in every situation. No setup is perfect.

If you want to experiment, a few software cache programs are recommended. First and foremost, try CACHEnnn.PRG in conjunction with SHDRIVER.SYS (if you're using the AHDI). To use it, simply change the name of the file to CACHE10.PRG, place it early in the auto folder, and reboot. Renaming the file to CACHE10.PRG will cause it to install a cache in your system RAM consisting of 10 data Buffers and 10 FAT buffers. The number you utilize when renaming the file, is the key to the size. It's not fancy, but it works extremely well in many situations.

Second, if you're using ICDBOOT.SYS (the ICD hard disk driver), read the manual and the large text file (on disk), which accompanies the ICD utilities, in order to learn how to set up ICD's software cache using HD_UTIL.PRG. It isn't difficult; a few mouse clicks and a few typed–in numbers.

Third, if you really want to be adventurous, track down something called TCACHE. It is currently at version 6.4, and is superior in every way to anything else currently available. The program has an enormous number of options and provides as much control over system read/write efficiency, as the most advanced OS/2 & Windows utilities.

***Remember at all times that attention to the testing process will ultimately net you a faster, more inherently useful and efficient system. Read the documentation which accompanies the Cache programs, carefully. Take your time. You'll be pleased with the results.▲***

ftp: micros.hensa.ac.uk

# THE CyberSTrider FILES

*Take a file tour of the Hensa Atari archive with Denesh (Danny) Bhabuta! Reviews of the latest and greatest PD and Shareware software!*

## MORE FOR LESS!

### The CyberSTrider (aka Denesh Bhabuta) brings you news from the PD world.

First I must thank Howard Carson for asking me to write for Current Notes. I am glad to be here. So what am I here to talk about? Something that is close to my heart for sure: PD and Shareware software. Over the coming months, I will be bringing you reviews of the latest (and some older) offerings from the PD world.

Over the past 20 months or so since I started as Atari Administrator at the ftp site HENSA/micros I have come across an unbelievable amount of PD software; so much that I don't have enough time to put it all on-line! At this moment in time, I have around 600Mb of Atari software to go on-line! If only there were more hours in a day. Who says there is no Atari software left?

PD and shareware will keep the Atari platform alive when no one produces any more commercial stuff for it. Even now, where else but in the PD sector can you find excellent file selector replacements such as Freedom, Selectric and Boxkite? Where else but in the PD sector can you find utilities such as UDO and zControl, shells for various things; the list is endless. The quality of a lot of modern PD and shareware software is amazing - much better than a lot of current and bygone commercial offerings. Shareware support sites such as Jeff Wisniewski's in the USA, Sven Bornemark's and Tom Thomason's in Sweden, Joe Connor's and mine, are popping up in various other countries. We all recognise the potential of supported shareware, and you users out there must support it too, by registering your shareware software. You might even send a few dollars to the programmer of a Freeware program if you use it. Yes . . . even for a freeware program. Show the author your appreciation. Make him/her stay with the Atari and bring you more quality programs.

[Stepping off soap-box] Anyway, enough of my lecturing, and on with the show.

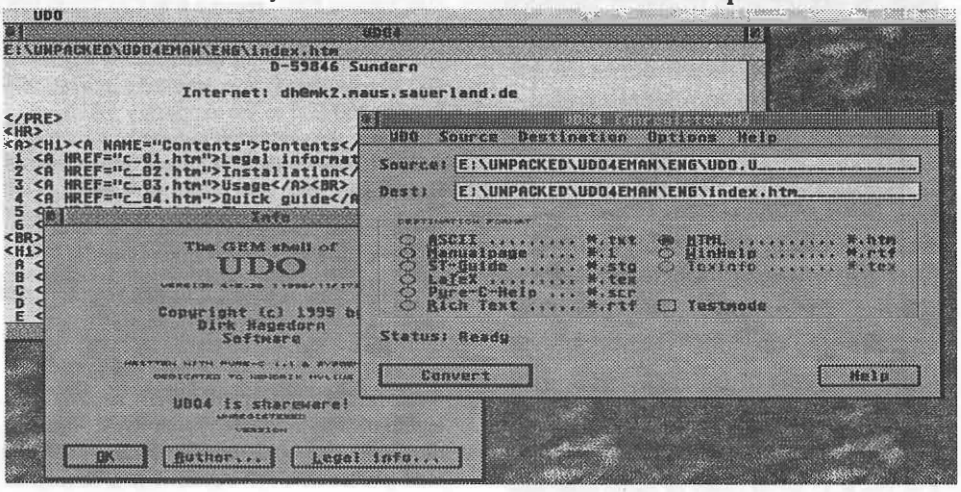
UDO v4. Shareware by Dirk Hagedorn. All Ataris.

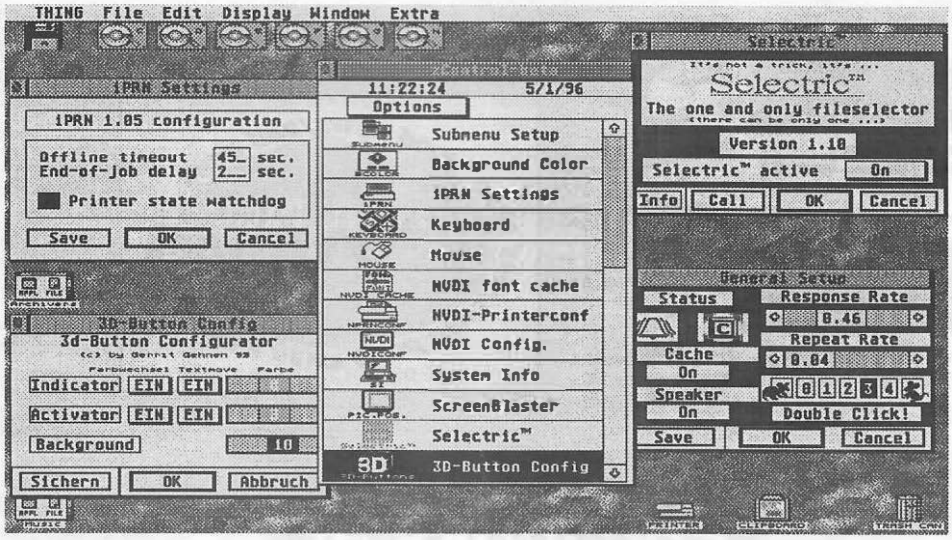
UDO (Universal DOcumentation) converts files from UDO syntax into various other formats: ASCII, ST-Guide, LaTeX, Rich Text Format, Pure C Help, Unix Manual Page, HTML and Windows Help. This is a godsend for programmers who need to provide documentation in various formats. It avoids the time and hassle that comes with writing specific source for each format.

UDO can be used as a TTP in its command line form, or as a GEM program. I recommend you use UDO as a GEM program because it offers many more features than the TTP. In addition to converting the source file you can call an editor, a viewer and even a specific program for the destination file when using the GEM version.

UDO is very easy to use. Select the UDO source, the destination format and then go. Everything is done automatically at high speed. It even implements the modern GEM interface standards of Drag&Drop, VA-Protocol, non-modal dialogs and iconify. Conversions run in the background and the main dialog can even be iconified during this process.

All UDO source code commands are covered in detail in the documentation. UDO itself is available on other platforms: DOS






and Linux, with all commands the same across the three platforms.

UDO is currently supported in Germany and the UK where registration is £16 for private users, and removes the nag boxes, time delays and some limitations. Hopefully, Jeff Wisniewski will take this on as another program for his U.S. support scheme. Until then, you may send International Money Orders (in UK Pounds to the UK site). If you want to create documentation in various formats (your own web page?), UDO is software you can't afford to miss.

Score: 9/10. UDO – Universal documentation at the touch of a button.

zControl v0.23. Shareware by Ralf Zimmermann. All Ataris.

This alternative to the XControl Panel gets better with every release. It has been around for a few months now and is classed as a beta version, but I find it even more stable than Atari's own XControl!

The advantages of zControl are that it is supported by the programmer, and any bugs will be removed. It supports the modern GEM standards of Drag & Drop, Iconify and the AV-Protocol, and it allows you to run up to four CPX modules at the same time, without the need for a multitasking system!

With many more features available you would be crazy not to use this and register it (for only £7!), via my shareware support scheme.

Score: 8/10. zControl – Use this and forget about XControl altogether.

Right, that's it for this month. There's not enough space this time for more reviews, but next month I promise to limit my pre-review 'wibble'. If you need any information on these programs or need to contact me, my e-mail address is dbhabuta@cix.compulink.co.uk

See ya next issue folks!▲

16|32|64 computer GAME

jaguar lynx

eric march

Current Notes REVIEW

good news/bad news good news/bad news good news/bad news

# Eric looks at the amazing NeoDesk4

*If you read my review of Flash II v3.0 in the Nov/Dec issue, you'll know I'm no big fan of GEM. It's not that it isn't useful. I certainly like GEM rather better than System (on the Mac) or Windows. GEM isn't more powerful or any prettier, but it does what it's designed to do with very fuss or frills. Don't get me wrong – I love fuss and frills when they're useful or generally make my working environment nicer. My system is loaded with frills, from Turbo ST to LED Panel, from Beep & Click to UIS III and any number of things in between.*

*But when an application gets so bogged down with fuss, frills and methods of doing things that are ostensibly better, but actually end up being more cumbersome to work with, it becomes something I stop using! One frill I've enjoyed over the years has been an alternate desktop. There have been a number of them: KAOS TOS 1.4, Ease, Gemini and TeraDesk. The one I stuck with however, was NeoDesk 3. Why? It offered the features I wanted, the power I needed, and it looked great. When I read the press release from Dan Wilga over a year ago concerning Gribnif's long-awaited NeoDesk upgrade, I was impressed. Some of the new features mentioned sounded utterly fantastic. Certainly it was a quantum leap over NeoDesk 3. But that didn't prepare me for the reality!*

*When the Managing Editor showed up bearing NeoDesk 4 (among other things), I installed it right away. By reason of poverty, I'd never*

upgraded my own NeoDesk 3 and I was eager to test version 4. Installation was a very simple process, all things considered. First though, let me tell you about the software packaging.

The NeoDesk 4/Geneva combo package comes in a very professional vinyl-covered box with a dauntingly thick 3-ring binder nestled within. The binder itself contains the disks necessary to install both packages, as well as the manuals for both Geneva and NeoDesk (since Geneva was covered last issue, I'll mention it only where relevant to Neo 4). The manual itself is very professionally laid out with lots of screenshots, easy to follow tips and hints on getting the most out of the software and so on. It's easy to follow, and takes you through everything step-by-step.

## What about the program?

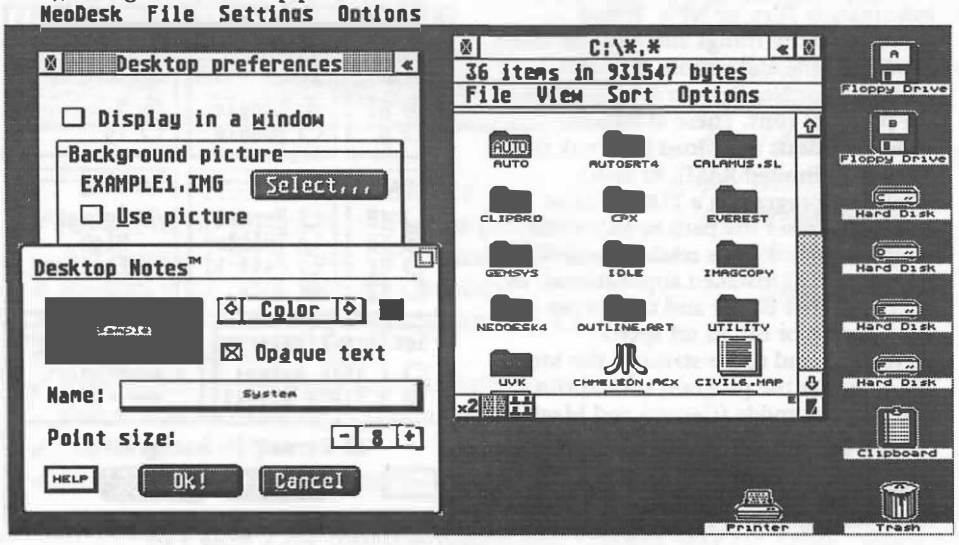
First impressions: Abso-%&@*#!-lutely wonderful! Let me just highlight some features: Animated, color icons, built-in Icon Editor, Windows-style program groups, background operations for all desktop operations (with Geneva, and some even without), built-in picture viewer for several different picture formats, AV Protocol and ARGV Command Line support, long filenames (within program groups), online Hypertext help menus, total RAM consumption configurability for memory-strapped systems, complete dialog box and file window configurability (to change the way buttons look, window and button colours, desktop patterns, and tons more), background desktop pictures or tiled patterns, compatibility with all Atari machines with added support for the Mega STE, TT (including the CaTTamaran board) and Falcon, and compatibility with all video modes. And that's not the half of it!

But let's go into detail on some of the more interesting features of NeoDesk 4.

## Simple Pleasures

For starters, let's look at some of the little things. I have always felt that intelligent little niceties in a program can often add up to excellence. NeoDesk 4 has no shortage of intelligent little niceties. In fact, it's loaded with things such as being able to leave Desktop Notes right on your desktop by double-clicking on a blank area and typing in whatever you want, or being able to customise how windows look, right down to the shape and color of the buttons. How about being able to rename a file just by holding down <CONTROL> while you single-click on the filename? Then there are the file windows themselves. The desktop itself features its own array of drop-down menus which allow you to fully customize the NeoDesktop environment. The file windows however, have their own dropdown menus too! This took a bit of getting used to, because all of the options that allowed you to set the sort and display options, which were previously found under the 'Sort' menu right on the desktop, are now in the file windows themselves. But this is good, because it allows you to customize each individual file window (of which you can have up to 7 open at one time) to the options of your choice. You can, for example, have one window displaying icons sorted by type with a '*.PRG' filter applied, while another window displays small text sorted by date with no filter applied, displayed in one column only. These settings are saved in your NEODESK.INF file, so they remain even if you reboot.

Oh yes, and the filters. A wonder of functionality, these things. They feature the ability to specify simple filters like "*.INF", or go all out with a "*.[PRG,AC?,PI[1-3]]" style "free-form" filter. (This example would filter out all files except for files with a PRG, AC?, PI1, PI2 or PI3 extension). Filters can be freely edited, and you can keep a list of your most frequently used filters.

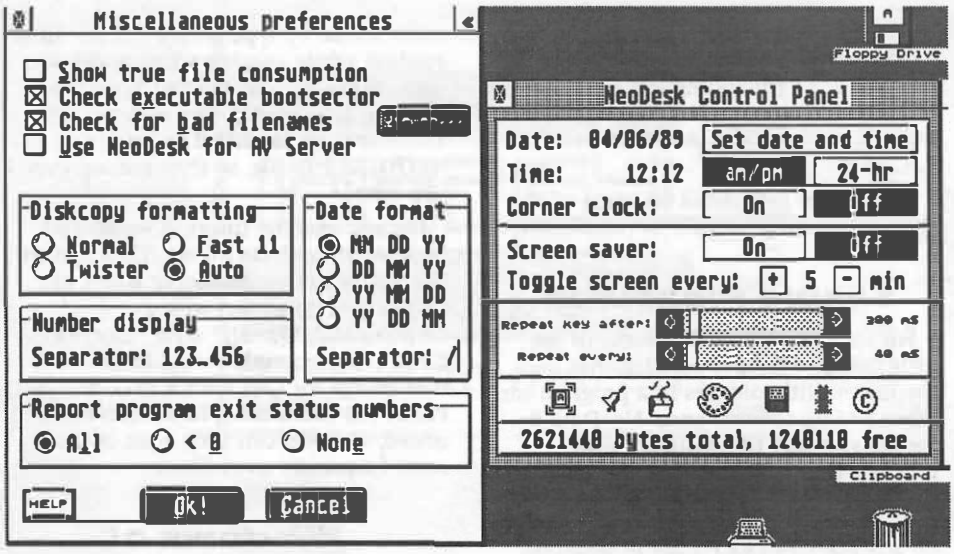



## Windows of Opportunity

The file windows contain a wealth of really useful features. A split bar for example, located right under the dropdown menu bar, allows you to split the file window in half, giving you two slider bars in one window, so you can scroll each half separately. At the bottom of the file window is a row of icons. From left to right, they allow you to open a new window to the same path you're currently in, toggle between text and icons, and 'Select All' to select all files in the current path. These buttons also change according to the state of the left mouse button. If you click and drag a file for example, the buttons change from left to right, to Copy to Previous Directory (eg.: allows you to copy 'C:\WORD\TEXT\FILE.TXT' to 'C:\WORD\FILE.TXT' without having to open a new window), Touch (to change a file's time/date stamp, etc.) and Delete File. Then there is the top of the file window which displays the current path you are in and the current file mask. You can just choose any part of that path name, double click on it, and NeoDesk will return to that directory. (eg. If you were in 'C:\WORD\TEXT\MAGS\CN\' and you double-clicked on the word 'TEXT', the path would change to 'C:\WORD\TEXT') Then there are the scroll bars, which can work like standard desktop scroll bars, or work in 'real time', meaning that the file window is updated as you scroll up and down.

## Icon See Clearly Now!

Continuing with the list of little niceties, we come next to the icons. For the most part, an icon's sole function is




to identify particular files at a glance by the visual representation of a filetype, without having to read the name. NeoDesk 4.0's icons allow you to take that several steps further. The built-in icon editor allows you to create icons for literally anything by allowing you to specify the filename of the program that this icon is to represent. Of course, you can specify a mask (*.PRG for program files, for example), or make icons for individual programs. Each icon can be in 2, 4, 16 or 256 colours (depending on your machine and resoluton), and features two stages: Selected, and Deselected. In other words, your icon can look different when it's clicked on than it does when it's just sitting there; absolutely useless, but one of those bits of eye-candy we all love to see from time to time.

NeoDesk's icon editor is quite powerful, featuring some paint program options (2/4 way mirror, fill, line, box, etc.), and allows both the mask and the icon itself to be set. Masks are used to surround icons and provide some sort of border or background, preventing them from blending into the background.

## Well, you get the . . .

. . . picture? How about desktop pictures? NeodDesk 3.0 had a feature which could place a Degas or Tiny picture on your desktop, but NeoDesk 4.0 adds much more to this. For one thing, the picture can be in Degas, TNY, Windows Bitmap (BMP) or IMG format, and for another, pictures can be tiled (if they are smaller than your current resolution), or centered on the screen. A picture will be dithered to monochrome if it contains more colours than your current resolution is capable of displaying. You don't have to use a desktop picture. You can use one of the built-in desktop patterns if you like, or simply leave it blank. But who wants something so bland?

## Mo' Better Modal . . .

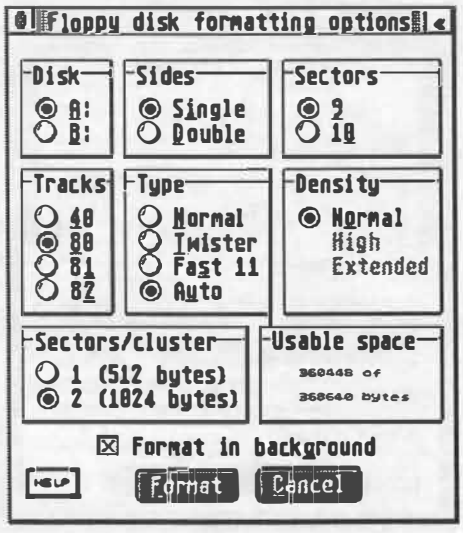
All dialog boxes in NeoDesk 4.0 are non-modal, which means they appear in windows. This allows multitasking programs such as Geneva or MagiC 4 to work flawlessly. It also means that you can move them around the screen as you please, or open a dialog box and then switch to another window while that dialog box is still open.

## We Want Information!

New in NeoDesk 4.0 are Program Information Files, or NPIs. These wonderful little things allow you to select a program file and choose different attributes for NeoDesk to set whenever the program runs. These attributes include options to unload NeoDesk (for users with limited RAM), to select whether a program is a TOS, GEM or batch file, to set the path to either the program loaded or its related documents (in the case of installed applications), to select whether Blitter and the corner clock are on or off, to set speed (8/16MHz) and cache status of the Mega STe, whether the program should run in multitasking mode (Geneva and MagiC supported) and more. It even supports the CyRel CaTTamaran TT accelerator board. You can select environment variables, command line options and more. You can create NPIs for any program you want, and they do not have to reside with the programs themselves. I keep mine in their own specific NPI folder. Truly, this is a wonder of configurability and allows any program in your collection to run flawlessly under. NPIs can also be labeled with long filenames (up to 12 characters, also including punctuation, spaces and upper/lower case)!

## Group Activity . . .

If you have ever used Microsoft Windows, then you are probably familiar with its program groups. Well NeoDesk 4.0 features program groups (better ones)! A Program Group allows you to collect a bunch of related programs which may or may not be located in the same folder or on the same drive, into one group and save that group for future access. It does not change the physical locations of the files, but rather keeps track of where each of those files is located, and then launches them from that path when they are double-clicked in the program group. Groups can contain any kind of file including NPIs and other program groups, so you can create groups of program groups. For example, I organized all of the games on my hard drive into groups classified by type, and then created a program group called 'Video Arcade' in which all the sub-groups could reside. One of the nice advantages of program groups is, like NPIs, your program groups can also have long filenames (up to 20 characters, also including punctuation, spaces and upper/lower case). Space is also provided to enter a short description (up to 40



characters long), of each file in a group. Another advantage when displaying files in a program group in icon format is that you can place the icons anywhere you want, as opposed to regular file windows which display icons in a grid format. You can also snap the icons to a user-defined grid if you prefer.

## Holy Macro Batman!

Like NeoDesk 3.0, you can create macros. These are designed to allow you to do anything at the press of a key or two. You can assign programs to keys, create a macro to automatically delete the contents of your D:\TEMP\ directory, to back up your C:\CALAMUS\WORK\ directory. In fact anything you could normally do from the desktop, you can program into a macro in order to repeat the process at any time. You can have as many macros as there are Unshifted, Shifted, Control, Alternate, and Key combinations. NeoDesk 4 even knows the difference between the left and right shift keys, and between the numeric keypad and the main keyboard. Be careful not to assign macros to keys that are used by NeoDesk though, because your macros will take precedence and whatever NeoDesk function was assigned to that key combination will no longer work until you either delete the macro or change its key assignment. And if you forget which key does what in your incredibly long list of Macros (each of which can be assigned their own names), you can browse through all of them one by one and even execute them from the macro menu.

## Help!

Though NeoDesk 4.0 comes with a superb manual, sometimes you just won't feel like digging it out to obtain some needed bit of information. To help out, NeoDesk 4.0 features an extensive Hypertext help system to provide essential information while you're in the middle of things. Each and every file window and dialog box in NeoDesk sports a handy-dandy Help button which will call up the help menu and give you extensive help on the part with which you're having difficulty. Moreover, because it's a Hypertext system you can click on underlined words and jump to the relevant reference. It also features an extensive, alphabetical index which you can browse through at any time.

Not good enough for you? Is your problem something that neither the help menus nor the manual covers? No problem! The introduction features Gribnif's phone number, as well as their postal and e-mail addresses.

## Final Analysis . . .

If you've been looking for an alternate desktop, or simply want to get much more out of your Atari than ever before, look no further than NeoDesk 4.0. This is an absolutely superb package. It has a plethora of features that will give you the power and flexibility to do almost anything. This review has only touched on a few of NeoDesk's features. I could write whole volumes on the subject, but there's only so much space! If you wish to get in contact with Gribnif, phone them at (413) 532-2434, fax them at (413) 532-2540, e-mail them at 75300.1131@compuserve.com or gribnif@genie.com, or write to them at Gribnif Software, P.O. Box 779, Northampton, MA 01061-0779. NeoDesk 4 is available directly from Gribnif Software and from Atari dealers everywhere.▲

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# Is platform loyalty completely stupid? Is there a fundamental difference between platforms?

***It's possible there are better computers than the one my neighbor owns. Mind you it's hard to say for sure, because there are just so darn many computers!***

***TOS/GEM, MS-DOS, System, OS/2, Windows, Windows 95, Windows NT, Novell DOS, PC DOS, Unix, Linux, Mint/MultiTOS, Geneva, MagiC, MagiCMac, Xenix, AmigaDOS, Motorola, Intel, AMD, Cyrix, and PowerPC all have honored places on literally thousands of different hardware combinations and permutations. What's true for my neighbor is true for others. What's true for my neighbor is also true for me.***

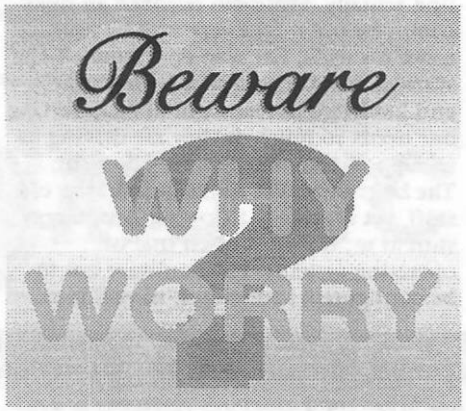
***What's does it mean when someone says, "this computer is better than that computer!"***

***What does it mean when someone says, "this computer is better than your computer!"***

***Who the heck are my neighbors, anyway?***

The last question is the most important one, because it tells us more about who we are and why we do things, than any comparison of tools, sales receipts (with large numbers on 'em), and so-called, cutting edge technology.

My next door neighbor's name is Harry Taylor. He's a nobody. He's a plain guy. He's unassuming. He's . . . well, he's just like me. He uses his computer to keep the family books straight, crunch the odd spreadsheet which he brings home from work, and connect to the Internet. His wife uses the computer to keep




recipes, grocery lists, and create cross-stitch patterns (which she sells through her small business, at flea markets). Harry's 2.5 children use the computer for Doom, creating cover pages and body text for school projects, and browsing the World Wide Web. Harry also suspects that his oldest kid (a 15 year old boy), may have discovered the secret stash of pornographic CDs.

There is another neighbor. His name is Phil Dean, and he believes himself to be a classy guy. Phil wouldn't be caught dead with a porno CD. Phil's 2.5 kids are dressed in designer jeans, while Harry's brood prefers sweatsuits. Phil owns a 120 MHz Pentium, 16 MB RAM, running Windows 95, while Harry pokes away at a 4MB RAM, 486SX25, running DOS and Windows. Phil's kids choose from a long shelf full of encyclopedia and other reference CDs, while Harry's kids get by with 5 or 6. Phil designs his own business cards and stationary, while Harry makes some pretty funny attempts at birthday and anniversary cards. Phil's wife Nancy produces a newsletter for her favorite charity and fund-raising organization, as well as flyers and broadsheets for her favorite politician. She uses Quark Express. Both Phil and Nancy send Fax's like there's no tomorrow.

There are another couple of neighbors, directly across the street. One of 'em has a MAC LC575 and the other has a Pentium. They both do most of the same things as Harry and Phil. The guy with the MAC is into some decent graphic design, mind you. He draws a cartoon strip by hand (he's a well known cartoonist, with a regular, syndicated newspaper strip), He scans it into his MAC for final fiddling, and then modems the completed file to his publisher, who then sends it out to all the newspapers that carry the strip.

I use a computer too; an Atari (as opposed to a C-Lab) Falcon030. It's a very nice computer: 14 megabytes of RAM, nearly a gigabyte of hard drive space, 32 MHz accelerator, SVGA monitor, and all the usual bells and whistles (basically the same peripherals my neighbors have: printer, modem, tape backup, etc.). I write, manage my finances (and a small business), and provide my own kids with a game platform. Just like the neighbors' kids, my own bunch have an 8-Bit Nintendo, a 16-Bit Nintendo, a Sega Genesis, and a 64-Bit Atari Jaguar. Apparently, the neighbors' kids love the Jaguar.

## So . . . who's first and who's worst? What's hot and what's not? Who cares anyway?

The answer is (surprisingly): None of the above and all of the above. The problem is, all those different computers work just fine, once you get past the problems and quirks which exist in each operating system. The software (by and large) is no more or less feature filled for one platform than another. Some platforms have got software that hasn't shown up on other platforms; there's only one North American Tax package for TOS/GEM computers for example, and it's strictly for U.S. income taxes. On the other hand, Windows based computers still don't have access to a genuinely broad range Text Editor. MACs are slow, but only for some applications; for others, MACs are blindingly fast. Unix boxes are ridiculously difficult to learn, but once you do, Unix suddenly becomes magically versatile. The computer software and hardware industries give

with one hand and take with the other. The problem has nothing to do with what one computer can do better than another; apparently, any of the boxes we have to be concerned with, can be made to do darn near anything, given the right upgrades, peripherals, etc. The problem really centers on how we participate in the marketplace. It's an awful lot like a good poker hand: if you're dealt (or if you draw) a decent hand, the smartest thing to do is stand pat and bet. It's all gambling naturally, but if you've got a decent hand and you discard something useful (hoping for an even better hand), you're suddenly taking an even bigger gamble. Persuasive sales pitches by the biggest manufacturers often make us believe that the hand we've dealt ourselves really does need to be discarded.

Pardon my french, but that's a lot of crap. The cart's been placed before the horse. It is real needs that have to be met (with a critical eye on the future). Many of the manufacturers and developers insist that we all need massive hard drives, huge monitors, and absurd amounts of processing power. None of them address real needs. The point is that my neighbors do have real, home computing needs (and none of them use multitasking, by the way). I'm use multitasking, because I operate a full home office. None of the neighbors have a genuine need for processing power beyond that of a 486DX2-66 with a 1 meg video card and 8 meg of RAM. All that RAM may seem outrageous to a typical TOS/GEM user, but in reality, the 486 running Windows needs it; it's only a little faster and more versatile than a Falcon (although it does a few things much slower than a Falcon), and not quite as fast as a TT (Falcons and TT's are very good computers, measured by *any* reasonable standard). The 486 ain't any better, it's just that there's more software available for it.

My neighbor with the high speed Pentium has more money than brains. All the neighbors spend far more time in front of the T.V. than the computer, and wouldn't be caught dead watching an MPEG or QuickTime movie in a window on a 15" monitor, when they've got a 26" color T.V. in the next room. None of the neighbors crunch any numbers large enough to give even a 386 any pause for thought. In point of fact, most home computer users never come close to taxing the resources of a 4 meg 386DX40, let alone a TT, a Falcon, an LC575, or a Pentium.

The computer manufacturers would like to see us all chained to our desks (at home or in the office), and they're making options available (T.V. in a window, videophone in a window, voice in a window, FAX), to do just that. How the heck did we get along all these years without this stuff? Well, we got along just fine actually. The main result of all this computer use might very well be nothing more'n a wide, flat rear-end, from all the sittin' around. The computer software and hardware industries aren't supporting our needs so much as they are driving us to support their endless development. The bugs never get worked out of the old stuff, yet they keep throwing new, buggy stuff at us; it's most often true of operating systems. The hardware has to be configured; sometimes 'til well into the night. TOS/GEM never presented this agonizing problem actually. Windows and OS/2 are the most notorious culprits. Windows 95 has gone a long way toward instituting Plug-n-Play, though it is by no means anywhere close to foolproof. MAC solved the hardware compatibility problem by simply making everything proprietary and therefore, stunningly expensive! Apple Corporation has dropped its prices over the past 24 months, purely out of self-defense. Windows NT is stable as hell, but there are still only a handful of native, 32-Bit applications for it (Calamus NT among them). NT doesn't do squat with 16-Bit applications. OS/2 sure is pretty, but *many* users have complained about installation problems and a lack of drivers. TOS 4.04 (which is supplied with the Falcon030 and the C-Lab Falcon 030), is a marvel of stability and compatibility. It doesn't do networking like the Windows and OS/2 stuff, so its business applications are very limited (although there is aftermarket networking software and hardware which does work, after a fashion). But for home office and general home computing needs, the status quo is actually overkill; for ALL the platforms and operating systems.

***So what am I yelling about this time? Simple. Don't buy into this never ending upgrade baloney.***

The stuff they show you on the T.V. ads, is being executed on the very finest machine the vendor makes or sells. You *won't* find it on sale for $1299.00 at Computer City. Even if you do spend $5000 to get one, rest assured that your graphics skills probably aren't up to the standard of creativity demonstrated by the dudes who made the TV commercial, that got you so darn excited in the first place! Sneaky, real sneaky.

What's the bottom line? Easy. There are too many operating systems, too many hardware platforms, too much lousy, overpriced software, and far too few salesmen who have the faintest idea what they're talkin' about.

***The problem centers on how we participate in the marketplace. It's an awful lot like a good poker hand***

So what do you buy next? Hah!! The answer is: NOTHING REAL NEW. Upgrade your existing stuff. Don't change platforms right now, because even the major manufacturers aren't precisely sure what they'll be developing next year. Go ahead, make their day and ask 'em about CHRP, PPC, and BeBox; they'll scream in pain! A wrong move on your part, before they decide which way the future lies, might mean you'll buy into some garbage that will turn into a dead, stinking, albatross. Bad decisions happen anyway, but don't aggravate the situation by following every single word the big corporations are telling you.

Upgrade what you've got with more RAM, a better monitor, a TOS upgrade (or an existing operating system upgrade that fits your computer platform), more video RAM (where possible), and a faster, higher capacity hard drive (prices have come *way* down). Configure your system properly; join a User Group for the support you need. The so-called self-help computer books are often worse than the original manuals you threw out in disgust. Ask about software Caches (read the article by Carson & Wolfe in this issue of CN). You might be shocked at the improvements in speed and general usefulness, that come out of a little bit of intelligent tweaking. ▲

# MIDI digital music MUSIC

**lorant oswald**

***The incredible musical dude, has tricks and tips up his sleeve(s). They even sound good, which is the point in the first place!***

## Pay attention . . .

***By the time you get to read this, all the festivities of this holiday season should have (hopefully) passed, and you are sitting on the last-shed needles of the Christmas tree. The last bits of turkey have been served in an entirely unrecognizable form. You have learned to use your new software. The nervous twitch, caused by yet another cheerful rendition of Jingle Bells that you had to listen to all through your holiday shopping, is almost completely gone. Your big toe, which the big guy in the crowd stepped on, doesn't really hurt anymore.***

It is the New Year and the 'MUDOC' ceremony is in full swing! What? You don't know what that means? Sure you do: Messing Up Dates On Checks! For a month or two you will write 1995 on checks, cross it out, write 1996, initial, make a mental note, and forget it right away. Admit it. You know how this time-honored tradition works.

According to research, 48-50% of the adult population in this country make a New Year's Resolution. The most popular ones are to quit smoking, lose weight, spend less money and find more time for the family. On average people make 1.8 resolutions.

I am a member of the above mentioned population. I have made my resolutions. I don't smoke due to the amount of training I do, and new eating habits have brought my weight under control. I made my resolutions in the area of spending cuts. Logically selected, carefully weighed, and systematically rationalized, I have come to the conclusion that before I continue to leave substantial portions of my salary with various music stores in exchange for more equipment, I should look at my existing setup and see whether it has any unexplored potential. Join me in this exciting (and financially relieving) journey! The intention is to show you common elements, tips, tricks, and techniques that (though they won't make an inferior patch sound better), will provide fresh combinations of sounds without having to spend lots of money.

I'm working with 2 keyboards, 3 sound modules (one of them General MIDI), 2 drum machines and several sound and effects processing units. It is enough to make acceptable recordings of almost any musical genre. In many ways it is more than enough, because I rarely use more than 10-20% of the sounds on any of the synths. Though there may have fifteen different strings patches on a module, two of them might have weird effects on them, four might be too tinny, and three won't have any vibrato, causing them to be somewhat lifeless. Two more might have added octaves, restricting them to being good fillers or bowed bass sounds. At least one features velocity controlled attack. The remaining three can be used any time. See my point? Once in a while I may need some 'outsider' sounds, but typically, the sounds that are used the most tend to be the best general purpose patches.

From a musical point of view, there are two basic types of synthesized sounds: the ones imitating or simulating existing musical

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instruments and natural sounds (bird, thunder, seashore, etc.), and the sounds that are purely electronic in origin. There are some overlapping sounds, such as a good re-creation of electric organ sound. A Rhodes or Moog patch may belong to both categories.

"De gustibus non est disputandum," said the antique Romans ('Do not argue about taste'). How very true. Therefore, what constitutes a good quality synth sound is only determined by individual choice, consequently becoming a matter of taste. Naturally, there are some overused types that should be avoided; they are musical 'commonplaces'. They were good sounds at one time, so everybody started using them. Today, no one even with a little originality and/or artistic self-respect would use an orchestra hit, a Shakuhachi solo or a gated thunder snare. If you don't believe me, read the article called 'The 20 Sounds That Must Die' in the October '95 issue of Keyboard Magazine. Other than that, the quality of a heavy synth bass, a wailing square lead or a 'squib, a zap and a spurtsch', is only determined by how well they're used.

When you attempt to replace an acoustic ensemble with a realistic sounding arrangement using your MIDI gear, several musical and technical criteria must be taken into consideration. First, select your instrumentation very carefully. There are numerous traditional ensembles that have been established throughout the centuries. There is no need to change them. If something made sense to the great composers of history, who are we to re-evaluate their methods?! It is only proper to avoid inappropriate instrumentation for a specific style: no string quartets for Baroque pieces, no large string sections for classically oriented arrangements, and no solid brass for large romantic compositions; the list goes on. There are numerous books on orchestration and arranging, including ones based on traditional, acoustic, real-life approach, all the way to those written specifically for the MIDI arranger. Only a little overall knowledge in music history is required to create authentic works in styles of the past.

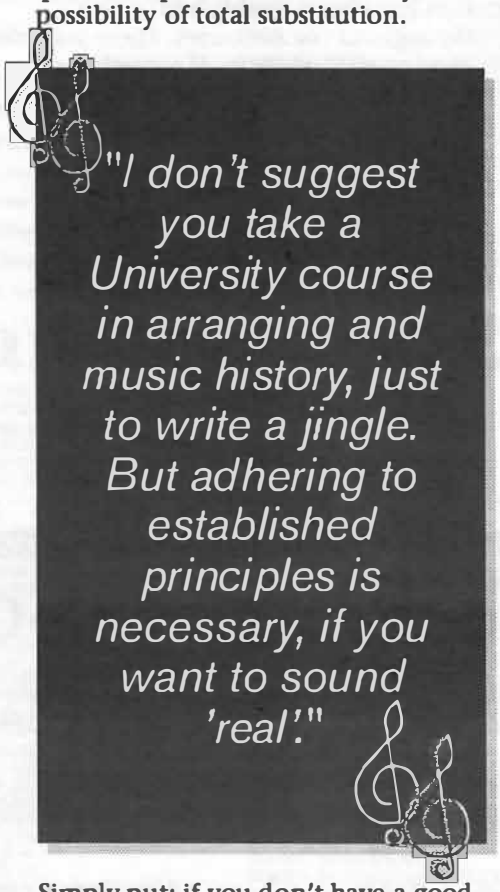
The next point to keep in mind is how to use individual instruments, idiomatically. You may find enough information about this subject as well, in the reference materials I mentioned before. It isn't necessary to get into the technical use of instruments: how to voice a chord for various groups using juxtaposition, or overlapping and interlocking methods. This is a subject for arranging courses. I'm talking about what an instrumentalist could or would do in a particular idiom. Trumpets and horns mostly emphasize the major functions, bassoons mostly double the cellos and the basses in a piece written in the Classical style. In the Romantic era, with the development of instruments and the invention of valves (the first patent for a valve

dates from 1818), the expansion of the number of keys on most woodwind instruments made the different instrument groups more equally capable. Thus, sectional writing became much more frequent.

These principles are not laws of nature. They are merely tendencies that have worked well for hundreds of years. There is much to learn from the great composers of the past. I don't suggest you take a University course in arranging and music history, just to write a jingle. But adhering to established principles is necessary, if you want to sound 'real'. A simple chart from any orchestration book shows the possible and practical ranges of instruments. If a flute cannot go much below the middle C (forget about the 'B-foot'), there is no reason why you would use one as a bass instrument. 'Nuff said.

There is only one other point I want to mention in connection with this subject: if you don't know the final key of your arrangement, keep instruments away from the extremes of their ranges. As I mentioned in an earlier issue of this magazine (are you paying attention?), I sequence orchestral backgrounds for a summer camp music theatre program. We never know what kind of voices we'll be working with, and virtually all solos and some of the ensemble numbers have to be transposed, once we meet our performers. If I voiced a bass line so that it used the entire range of the instrument, and the piece had to be transposed down a third (it happens), my bass would sound too muddy. If I had to put the thing up a sixth, instead of down a third (do you remember inversion of intervals?), the higher notes would sound too thin. In any case, most patches have a rather limited range in which they sound really good. Outside of this sometimes pitifully narrow range, they loose vibrance.

Now you are ready to create authentic, practical arrangements that will adhere to every bit of knowledge accumulated throughout the history of music. There is only one problem: you don't have a good trombone (or oboe, solo violin, or whatever), on any of your sound modules! Of course there are some inferior patches, but they would ruin your otherwise perfect work. Unfortunately, there is no perfect solution to this situation (without spending large amounts of money). However, I have encountered several little tricks that (though they won't make the basic patch sound better), will at least cover the problem without sounding too obviously 'patched up'. First there is always the possibility of total substitution.




Simply put: if you don't have a good patch, don't use it. With some ingenuity, study, and luck, a whole substitution system can be developed, until you can afford to upgrade your gear. The second solution involves adding sounds, laying down pads, ghost tracks, and aliases. Instead of using a solo-type sound for example, mask it with other, similar sounds. I used to put a soft crash cymbal roll underneath a snare roll to make it more 'rattling'; a short, sharp breath or low flute sound to blow up crash cymbal effects; double the french horn sounds with a soft trombone (sometimes an octave below), to make them more powerful. You can certainly use combinations of sounds to create really desirable effects. For example, to imitate a string tremolo or the 'flutter tongue' technique on the flute or trumpet, two sounds can be combined: a quickly repeated tremolo sound and a 'straight', long note on a similar instrument. Sometimes using two slightly different sounds produce surprisingly good results. Try a muted trumpet tremolo with a straight overlay, or a repeated shakuhachi with a flute.

One word of warning when combining sounds: don't forget about the dreadful effects of phasing! If you attempt to make up a sectional sound, overdubbing each consecutive voice from the same patch, unisons may cut out or phase; definitely something to avoid in any situation. Some inferior patches may work just fine as fillers, as long as the outside voices sound realistic enough.

Very few people can afford all the gear they need. In fact, the more you have, the more you want. But until you can afford to buy the next piece of hardware, see if you can find some uses for the sounds you previously labelled 'garbage'. The motto 'Reuse, Reduce, Recycle', doesn't have to stop in the kitchen!▲

*Lorant Oswald is a highly regarded music teacher at the Etobicoke School of the Arts in Toronto. He also plays keyboards for the Night Moves Jazz Orchestra . . . (no kidding!). He does NOT play the Bassoon(?). Lorant was born in Budapest in 1961 and received his early music education at the famous Franz Liszt Academy.*

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STA240 JUNIOR SCHOOL TESTS UK
STD021 KINDERAMA AGESPRE-6
STD582 MAGICAL MYTHS
STD609 MIXED UP MOTHER GOOSE
STE430 PHYSICS VOL. I A RRAKIS
STE431 PHYSICS VOL. II ARRAKIS
STA294 PIANO THEORY 1A,1B & 2
STA295 PIANO THEORY 3, 4 & 5
STA241 PLAY AND LEARN PROFESSOR
STD916 QUIZ MASTER CONSTR SET
STD605 QUIZ WIZARD
STD440 QUIZAM!
STD583 READARAMA
STE698 SESAME ST NUMBERS COUNT
STD597 SMOOTHTALKER
STE422 STATISTICS V.I ARRAKIS
STE493 SUPER KIDGRID
STE423 TRIGONOMTRY ARRAKIS
STA274 WORD FOR WORD CROSSWORD
STD578 WORD MASTER
STE142 WORD QUEST

## ST GAMES $9.95

STD019 AIRBALL
STD028 ALCON
STD651 ALLABOARD
STD025 AMAZON
STE520 ANTAGO
STE331 AQUANAUT
STD676 ARENA
STD016 ARKANOID
STE482 ASTRO MARINECORPS
STE801 ATOMINO
STE549 ATOMIX
STE090 AXE OF RAGE
STE065 BACKGAMMOM
STE003 BAD CAT TOS 1.0ONLY
STE651 BADLANDS PETE
STD412 BALLYHOOTEXT ADVENTURE
STD742 BATTLESHIP
STE412 BATTLEZONE From Atari
STE052 BEAM
STE494 BERLIN 1948 EAST/WEST
STD494 BIO CHALLENGE
STD652 BLACK CAULDRON
STE402 BLOCKOUT
STA058 BONANZA BROTHERS
STE453 BOOLY
STD696 BORODINO
STE630 BOTICS
STD044 BOULDER DASH CONSTR
STE171 BUBBLE BOBBLE NOT STE
STE103 CALIFORNIA GAMES
STD132 CAMELOT
STE005 CARDS BLACKJACK TO SOLIT
STE613 CHAMPIONSHIP RUN
STD723 CHAMPIONSHIP WRESTLING
STD671 CHARIOTS OFWRATH

## ST GAMES $9.95

STE652 CHRONICLES OF OMEGA
STA289 CLUB BACKGAMMON
STE676 CODENAME: ICEMAN
STE540 COLONELS BEQUEST
STD048 COMBAT COURSE
STD049 CORRUPTION
STE432 CRACK'ED
STD988 CRASH GARRET
STE701 CRIME WAVE
STE415 CRYSTAL CASTLES
STE399 DARK CENTURY
STD060 DEATH SWORD
STE451 DEFENDERS OF THE EARTH
STD250 DEJAVU II
STA232 DELUXEASTEROIDS
STD727 DEMON'SWINTER
STD252 DEVON AIRE
STE640 DICK TRACY TOS 1.0 ONLY
STD058 DIVE BOMBER
STE024 DOMINATOR
STE277 DR DOOMSREVENGE
STE444 DRAGON SCAPE
STE615 DRAGONS BREED
STD754 DRAGONS OF FLAME
STE135 DYNAMITE DUX
STE474 DYNASTY WARS
STE450 DYTER-07
STE631 EAGLES RIDERS
STD065 ELIMINATOR
STE760 ENCOUNTER
STD496 ESPIONAGE
STE749 EUROPEAN SUPER LEAGUE
STD346 EXOLON
STD249 F-15 STRIKE EAGLE
STE216 FALLEN ANGEL
STD082 FINAL ASSAULT
STE683 FINALCOMMAND
STE460 FIRE AND BRIMSTONE
STE266 FIRST CONTACT
STE551 FLIP IT N MAGNOSE
STE818 FRENETIC
STD489 FUSION
STD339 GAMBLER, THE
STD719 GAMES, THE NOT TOS 1.0
STD650 GATO
STE107 GEMINI WING
STD548 GO-MOKU/ RENJU
STE011 GOLD RUSH
STD083 GOLDEN PATH (ONLY TOS I)
STE572 GREMLINS 2 TOS 1.4/1.6*
STE979 GUARDIANS
STD092 GUILD OF THIEVES
STD091 GUNSHIP(NOT TOS1.4/STE)
STD103 HACKER II
STE406 HAMMERFIST TOS 1.0
STE986 HARRIER STRIKEMISSION
STD102 HELLBENT
STE290 HELL RAIDER
STE212 HERO VAPIDS KEEP
STD506 HEROES OF THE LANCE
STD105 HEX
STE109 HIGH STEEL
STE137 HILLSFAR
STD106 HOTSHOT
STE756 HYDRA TOS 1.2 ONLY
STD145 IMPOSSIBLE MISS. 2
STE709 INSECTS IN SPACE
STE578 INTERNATIONAL 3D TENNIS
STD097 INTO THE EAGLE'S NEST
STE309 IRON LORD
STD634 JEWELSOF DARKNESS
STD465 JOKER POKER
STE415 JOUST From Atari
STE388 JUMPING JACK SON
STD246 JUPITER PROBE
STD024 KALAH GAME OF SKILL
STD108 KARATEKA
STD111 KNICKERBOCKERS
STD110 KNIGHT ORC
STD118 LEDSTORM
STD133 LEGENDOF THESWORD
STD129 LIBERATOR
STE607 LIGHT CORRIDOR
STD117 LOMBARD RALLY
STA081 LOST PATROL
STD119 LUXOR
STE594 MI TANK PLATOONNO TOS I
STE119 MANHUNTER II SAN FRAN
STD179 MANHUNTER NEW YORK
STE160 MANIAC MANSION
STD150 MANIAX
STE559 MANIX
STD141 MARBLE MADNESS

## ST GAMES $9.95

STE621 MATRIX MARAUDERS
STE865 MEAN MACHINE
STD157 MERCENARY
STD932 MERCENARY 2ND CITY
STD140 METRO CROSS
STD148 MIDIMAZE
STE410 MISSILECOMMAND
STA229 MOONBASE
STA102 MOTORHEAD
STE125 MR. HELI
STE738 NAM 1965-1975 NOT STE
STD343 NETHERWORLD
STE129 NIGHT WALK
STE649 NINJA REMIX
STE369 NINJASPIRITS
STE661 NOEXIT
STD166 OBLIVION
STD172 OGRE
STE526 OPERATION: CLEANSTREETS
STE826 OUTZONE
STD175 PALADINQUEST DISK
STE136 PAPERBOY
STD181 PAWN
STD180 PHANTASM
STD176 PLUTOS
STD162 POLICE QUEST II
STE735 POP UP
STE091 POPULOUS:PROMISED L DATA
STD183 PRESIDENT ELECT
STE255 PRINCE
STE590 PRO SOCCER 2190
STE250 PROJECT: NEPTUNE
STE457 PROJECTYLE
STD866 PSYCHO
STD468 Q-BALL
STD200 QUADRALIEN (NOT STE)
STE194 QUARTZ
STE036 QUESTPROBE
STD448 QUESTRON II
STD199 RAMBO III
STE632 RANX
STD173 RAZRATS
STD748 RED LIGHTNING
STE442 RENAISSANCE
STD197 RENEGADE NOT ON STE
STE715 REVELATION
STE579 RICK DANGEROUS II
STD189 ROADWAR 2000
STD190 ROADWAR EUROPA (SSI)
STD191 ROADWARS
STD003 ROBOTRON 2084 ST
STE350 ROTOR
STE481 ROTOX
STE071 RVF HONDA
STD220 S.D.I.
STE606 SAINTDRAGON
STE073 SAVAGE
STD704 SENTRY
STE782 SHADOW DANCER
STD218 SILENT SERVICE
STD633 SILICONDREAMS
STD711 SKY CHASE
STD712 SKYFOX
STE204 SLAYER
STD156 SLAYGON
STE087 SLEEPING GODS LIE TOS1.0
STE569 SNOW STRIKE
STD348 SOCCER SUPREMO
STD011 SORCERER CLAYMORGUE
STD713 SPACE CUTTER
STD236 SPACEHARRIER
STD008 SPACE QUEST
STD009 SPACE QUEST II
STD081 SPACE SCHOOL SIMULATOR
STD006 SPITTING IMAGE
STE411 ST STAR RAIDERS
STE138 STAR COMMAND TOS 1.0
STE287 STAR-BLAZE NOT STE
STE256 STARBREAKER
STD703 STARGLIDER
STD010 STARQUAKE TOS 1.0 ONLY
STE176 STEEL
STE178 STEIGAR
STD729 STELLAR CRUSADE
STE151 SUBBATTLESIMULATOR
STE184 SUPER SCRAMBLE
STE763 SUPERCARS II
STD260 SUPERMAN: MAN OF STEEL
STE808 TANGRAM
STD265 TAUCETI LOST STAR COL
STD262 TECHNOCOP
STE530 THUNDERSTRIKE
STD264 TIMEBLAST

## ST GAMES $9.95

STE684 TOM AND THE GHOST
STD272 TOWER TOPPLER
STD234 TRANSYLVANIA
STD773 TRANTOR
STE581 TURRICAN
STE077 TV SPORTS FOOTBALL NOSTE
STD259 TWILIGHT'S RANSOM
STD705 UMS
STE933 UNDER PRESSURE
STD277 URIDIUM
STE018 WANDER
STD239 WANTED
STD299 WARSHIP
STE503 WEBOF TERROR
STE062 WEIRDDREAMS NOTSTE
STE634 WELLTRIS
STD638 WICKED
STD721 WINTERCHALLENGE NOTSTE
STD284 WINTER GAMES NOTON STE
STE447 WIPEOUT
STD392 WISHBRINGER
STD289 WIZARD'S CROWN (SSI)
STD722 WORLD GAMES
STD668 WORLD KARATE CHAMP
STE817 WRECKERS
STA231 XOR LABYRININE PALACE
STE541 YOLANDA
STD293 ZANY GOLF
STD297 ZERO GRAVITY TOS 1.0
STD298 ZYNAPS

## ST Non-Games $9.95

STD799 CZ ANDROID
STD384 EZ TRACK
STD389 HYBRISWITCH
STA299 STEINBERG 12 MIDI SEQ.
STD827 A-RAM
STD531 ART & FILMDIRECTOR
STD859 C.O.L.R. OBJECT EDITOR
STA287 CELEBRITY COOKBOOK
STD953 CRYSTAL DESKTOP ACC
STE745 DC SHOW ER (DISPLAY AIL)
STD694 DESIGN IDEAS FOR T.DTP
STD945 DRAW ART- MIGRAPH
STD851 ECHO
STD814 EDUCATION GRAPHICS IMG
STD911 ENCRYTP!
STD835 FAST KEY SHELL
STE469 FIRST WORD
STE542 FORCASTER III
STE814 G.I.M.E. TERMINAL
STE952 GFA COMPANION REQ GFA BA
STE035 HABA PHONEBOOK
STE210 ISTALK
STD849 KISSED
STD837 M-CACHE
STD684 MACROMANAGER
STD675 MAKE IT MOVE
STE030 MENU +/SCREENEDITOR
STE774 MENU PLUS
STA279 MICHTRIN BBS 2.0
STA280 MICHTRON DISK UTILITIES
STD939 MR. BOSTONBAR ABRIDGE
STA114 MUG SHOT DATA LADIES P/U
STA013 MUGSHOTDATA TOON/SPUD
STD793 NAVIGATOR
STD702 OCP ART STUDIO
STE179 OMNIRES (MONO/COLOR)
STE984 PAYROLLMASTER(ROYAL)
STD205 PEOPLE, PLACES & THINGS
STE041 PERSONAL MONEY MANAGER
STD921 POWER ASSIST
STD796 QUICKTRAN
STD466 QUINK
STE020 RHYTHM
STD950 RUBBER STAMP
STE966 SATELLITE LOCATOR
STD755 SAVED
STE033 SOFT SPOOL
STD929 ST RELIEF
STD806 ST SPRITE FACTORY
STA225 STAR STRUCK THEASTROLOG
STE793 STEALTH (MODEMPROGRAM)
STD783 STUFF
STD693 SYMBOLS AND SLOGANSIMG
STD829 SYMBOLS LIB. FLOWCHARTS
STD958 SYMBOLS LIB. HYDRAULIC
STD798 VIDEO TITLING D.REQCAD3D
STE443 VT-100TERM EMULATORCAR
STD780 WHYWAIT

*We have other $9.95 titles not listed here.*

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# letters: fun, opinion, anger, technobabble, questions . . . and a few answers

## Mission(ware) Accomplished!

*Thanks for a great review. Eric March did a fine job explaining the program to the reader. But I'd like to make a few comments, as well as point out a couple of minor inaccuracies.*

*Eric mentions he had VT100 compatibility problems when using Lynx and IRC. I don't regularly use IRC myself so I can't directly comment on any incompatibilies there. I do use Lynx (via BIX) quite often however, and I've never run into the problems Eric mentions. Therefore, I'm stumped! I wonder what he's seeing that I'm not. One thing I'd like to do is e-mail you our next release, in beta form, to see if that solves his Internet problems.*

*One minor inaccuracy in the article concerns the manual that comes with Flash II. Eric said there were two manuals: one for v2.23 and one addendum for v3.00. We've got an entirely new manual for v3.00 though, as well as the upgrade manual for current users. Anyone who purchases Flash II gets a brand new, 250 page manual, specifically written for v3.00. Current users who upgrade to v3.00 can get the new manual instead of the upgrade manual, for a slight extra charge.*

*Finally, Eric mentions that "the editor has no capabilities for taking text and dumping it to the modem; it is necessary to save your capture, or a block of it to a file, and then do an ASCII upload." Actually, Flash II can upload blocks of text directly from the editor to the BBS. I couldn't live with a telecom program that couldn't do that! The upload can be done two different ways. First, the block of text is marked in the editor using the mouse, menu or functions keys (F1 & F2). That block of text can then be uploaded from the Transfer menu using the ASCII Upload function, or it can be done from the command window by entering ">ul bl as" (upload – block – ascii).*

*Thanks again for the great article.*

*John Trautschold, Missionware Software, Palatine, IL.*

[CN]: You're welcome; Flash II v3.00 is a fine piece of work. We'll take a look at that beta version, and report on it. We've also printed your corrections, to make sure existing users are aware of them, and that potential users aren't scared off!

## All I Want For . . .

*In response to your e-mail News Release: my needs are pretty simple. Educate me on the latest computing trends, i.e.: Internet and the Atari ST line, software, hardware and where to go to get access, hot spots and the like. I've barely touched the iceberg of the internet and am totally confused at times.*

*I really like software reviews, but I suggest you do them like the old Antic/Analog magazines did: include some info on the author (I think it really made the programmer feel important); include PD and Shareware reviews, as well as Commerical ones.*

*Rodney Bennett, (from the 'net via e-mail).*

[CN]: Well, if it's any consolation Rodney, the Internet confuses us too. That's why we've got David Troy, Eric March and a few others, sorting it all out for us! Stay tuned, because there are some fascinating developments in the works. As far as reviews are concerned . . . we'll print everything we feel is important [there are space constraints to think about, too]. This issue of Current Notes features the inaugural column by Danny Bhabuta [CyberSTrider], with capsule reviews of the latest releases from the Hensa ftp site.

## More Reviews? Writers?

*I'm now reading and enjoying your second issue of Current Notes. Your group in Toronto is doing a great job against what must be large odds. I hope your advertisers will continue to support your efforts in this "delicate" Atari market.*

*You may recall I "threatened" to write an article on Protext, but gave up temporarily, because I couldn't figure out a way to do screen dumps with text and drop-down menus showing. I've now found a way to do this, but the resulting graphic format is DEGAS PI2.*

*Assuming I can get a head of steam back up to dig into this very complex subject, are DEGAS files good enough? I've viewed them, using Speed of Light and they look OK. I'd like to have the MS in your hands before I disappear into the deep south at the end of January.*

*Walter A. Cole (via internet e-mail).*

[CN]: Thanks for the support. Protext is a tough nut to crack, but it remains the premier, pure wordprocessor for power users. The current incarnation of Protext is being fully supported by COMPO Europe/UK. Degas PI2 file are just fine, although we'd prefer PI3 (ST High), or monochrome TIFs. We're all looking forward to your submission; Protext is an amazing piece of work.

Anyone contemplating the submission of an article to Current Notes, can request a copy of our Writers' Guidelines. The rules are simple, easy to follow, and help create informative, readable articles. Current Notes reviews every submission for content and quality. Although the magazine has a full compliment of writers and contributors, we'll consider nearly anything sent our way.

## DON'T DO THAT!

*I'm having some odd and frustrating problems with my Falcon, which have cropped up over the past three weeks. Mainly, the computer only works intermittently; it will sometimes boot perfectly and run for hours (and days) on end, without the slightest bit of trouble. On other days, I get weird 'Sense Codes' that I think are reported at the top right corner of my monitor, by my hard drive utility (ICDBOOT.SYS). I have tried calling ICD (and I've also left them e-mail), but so far there's been no response.*

*Other times, the computer will boot and run for a couple of hours and then lock up on me. Just before it locks up, I sometimes get an error message that the data on a partition I'm trying to access is damaged. I don't use Diamond Edge, Knife ST, Hard Disk Sentry, ST Tools or any of the other types of software that are supposed to repair disk problems. I'm a little leary about using that kind of*

# help

*software. Very few people seem to be able to give me straight answers about using it, and although I own Diamond Edge2, the manual has been hard to get through.*

*I'm running my Falcon with the 32 MHz PowerUp 2 accelerator, NVDI, 4 megs of RAM, and an Acer SVGA monitor. My hard drive is an older 120 MB Quantum (about 4 years old). I've been told that dropping my computer from a height of about 12 inches will help re-seat some chips on the motherboard, and get rid of my problems. But I've never deliberately dropped a piece of complicated electronics in my life, and I really don't want to do it now.*

*Mark Lebonney, Jacksonville FL.*

[CN]: Don't Drop Your Computer From Any Height, Mark! Something will break, and you'll be saddled with a *large* repair bill; we guarantee it!

There are a lot of myths surrounding certain types of TOS computer problems. However, if you want to re-seat the chips on a motherboard (*any* motherboard), the best method is to remove the case, shields, floppy drive, hard drive, power supply and motherboard (so it can lie flat on a workbench), press the chips down firmly, and re-assemble the computer. The technique is supposed to compensate for the heating and cooling effects of turning a computer on and off, which can sometimes result in a few chips working themselves up in their sockets.

Your problem is two-fold. First and foremost the problems you describe almost invariably result from a badly fragmented hard drive or a partially corrupt FAT (file allocation table). If the problem is intermittent as you describe it, there's the likelihood that cross-linked sectors have been created as well. None of this is necessarily catastrophic, but the situation does point out the need for regular hard drive maintenance.

Second, I'll bet you've recently had a file problem. I'll bet that some piece of software you were using wrote a file to your drive that was either corrupt, difficult to delete, or otherwise unreadable.

The solution is fairly straightforward. Back up your hard drive, run Diamond Edge or Hard Disk Sentry, and fix the problem. ST Tools will work quite well, too. However, if you run into any problems, Diamond Edge and Hard Disk Sentry are so well supported and have so many users, that help is exceedingly plentiful.

There are other possibilities besides FAT and fragmentation damage, and it might be best for you to look in some obvious places. Are you experiencing the problems only when you write to a particular partition? If so, check to make sure the partition isn't full (or nearly full). TOS and ICDBOOT.SYS are generally very reliable when it comes to error messages (like 'Drive is Full", for instance!), but sometimes the computer does hiccup. These hiccups can sometimes be caused by new software we're trying out.

Does the problem occur only when you use a particular piece of software? It is possible that some poorly written ACC or Utility is giving you this grief.

It is also possible that your hard drive is developing a lot of bad sectors (which is usually an indication that it's time for a new hard drive)! Drives don't last forever, and you might want to consider upgrading to one of the larger, faster Quantums (we really like the Quantum Lightning series).

Finally, it is also possible that your version of the ICD booter is not up to snuff with respect to TOS 4. Try upgrading to a version released during the past couple of years. If you're using the Falcon with an internal IDE drive as well as an external SCSI, you might also want to try installing Atari's own freeware utilities, including the Atari booter [SHDRIVER.SYS]. The latest version is v5.03c/5.04, and the booter version is 6.06i. A lot of people are using the Atari utilities with Falcons, and reporting excellent results with respect to both speed and stability.

Before you do any work on your hard drive, do a full back up . . . just in case.

## Registration Blues

*I'm worried about a Shareware registration fee I sent in to Aaron Hopkins, the author of Freeze Dried Terminal. I sent him a money order about 12 weeks ago, but I've received no KEY file or any other sort of answer from him. Last month, I came across some talk on-line about how Aaron Hopkins ripped people off. Is there any truth to this? Should I just write-off my registration fee? I got the software from my User Group Librarian, and I really don't know what to do about the situation.*

*Diane Clement (address withheld by request).*

[CN]: We're *really* sick and tired of hearing about Aaron Hopkins. Current Notes respectfully recommends that people interested the rather dated Freeze Dried Terminal software, find another telecommunications program. The software has not been supported in 3 years. The author himself has publicly stated that anyone with a registered KEY may share that KEY with people who have sent in fees, but received nothing in return. This statement has never been publicly disputed by the author (which tends to eliminate the idea that it is vaguely possible the original statement might have been fictitious). In addition, a KEY (which originated with a pirate group called 'MCA of Elite'), has now been widely distributed, publicly, on the internet (as a UUEncoded file). Recently, ST Format magazine distributed a public KEY on one of their cover disks.

Current Notes strongly recommends that you not use the pirate KEY. In fact, we also recommend that you avoid Freeze Dried altogether: There's a nice little stack of excellent telecom programs for TOS/GEM computers: Flash II (reviewed in the Nov/Dec'95 CN; superb software, excellent support), STalker3 (from Gribnif Software; superb package, excellent support), CoNnect (superb Shareware from Germany, in English!), Teddy Term (no longer supported, but excellent nonetheless), and several others.

We're also astonished that your User Group Librarian would recommend Freeze Dried, without informing you about the fact that it can no longer be registered. Virtually every librarian and Sysop on the planet knows about this software, the problems surrounding it, and the large amount of money paid out by registrants who never received anything in return. Freeze Dried should be deleted from every software library, BBS, and ftp site. Librarians and sysops who fail to do so, are doing a serious disservice to their patrons.

## Quick! Look Behind You!

*Hello, Current Notes people. I hope you can help me. I live in the Washington DC area and I own a Mega4 STe (which I picked up about 6 months ago. I'm looking for an Atari dealer with a good range of products and services. There doesn't seem to be anybody in the DC area though. I'm ready to take a 'step up' with this Mega4 STe, but I can't do it without new software. I got your address from Joe Waters (the former publisher of Current Notes), who said you could help. I just picked up a copy of the November 1995 issue, and I've enclosed my subscription check.*

*Herb T. Miller, Washington DC.*

[CN]: Quick Herb! Look behind you! Sorry we couldn't resist; but only because TOAD Computers is practically in your backyard. TOAD is the largest Atari/TOS/GEM retail and mail order dealer in the world actually, and they're located in Severna Park, Maryland. Severna Park is only 2 hours from DC, and about 30 minutes from downtown Baltimore. Visit the store anytime (it's like an Atari user's candy store), or call TOAD at one of the numbers listed in their ads in this issue. Have fun.

## No . . . No . . . & No!

*I am thinking of moving up to either Calamus SL or Timeworks Publisher 2 (which was released as a 7-disk set with the September '95 Atari World). I've also heard that DAs Layout is good. Will this software run on my 1040 ST? I have an SC1224 monitor, so color shouldn't be a problem. I also use a megafile 20 hard drive, and I think my TOS version is 1.02.*

*(Name withheld by request), Kalamazoo MI.*

[CN]: No. None of the software you listed will run properly on your TOS 1.02, 1 meg machine. Even if you could get any of them to actually load properly, only Timeworks would run in ST Medium resolution. What you're attempting to do is stuff 10 pounds of gold into a 5 pound bag.

At a minimum, you have to upgrade your TOS to v1.04, your RAM to 4 megabytes, and find a much larger hard drive. In addition, Calamus SL and DAs Layout need a minimum of ST High resolution, so you'll also need an SM124, SM125, or SM147 monitor.

Timeworks 2 can be made to run from floppies, if you've got enough RAM (at least 2.5 meg), but will operate very slowly.

Calamus SL and DAs Layout are extremely powerful professional applications. While these programs can be used by anybody, they do require minimum hardware standards. Your system is much too old to be running such advanced applications without some serious upgrades, as listed above.

We suggest you consider the purchase of a whole new system (used). A used Mega4 STe, TT, or Falcon can be obtained for only a little more than the upgrades you should consider. Any of these three will do a perfectly decent job of running DTP software faster and more accurately, than an upgraded 1040 ST.

## Where'd They Go?

*What can you tell me about Digital Center, Compuware, and Falcon Systems? I live in Calgary Alberta, and would really like to know if there are any Atari dealers left in Canada!*

*Craig & Gina Miller, Red Deer, Alberta, Canada.*

[CN]: These three Canadian dealers have stories to tell! Digital Center has just downsized, and we'll be contacting the owner (Tony Crecca), to get his new address and phone number.

According to ABC Solutions (distributors of SARA, Edith Professional, etc.), Compuware are barely doing business of any kind, and should be avoided at all costs. Evidently, ABC (and a couple of other suppliers), remain unpaid for certain inventory. That's always a bad sign for consumers.

Falcon Systems is very much alive and well in New Westminster BC. Call Graham Norton at (604) 522-2915, or e-mail them at 'g.norton' (on GEnie), or 'g.norton@genie.com'.

If you live in Red Deer, you've got a major Atari mail order house in your own backyard: Computer Direct, in Edmonton (well, *almost* your backyard). Call Chris Krowchuk at (403) 496-2488 or check out their ad on the inside front cover of this issue! Call & ask for a copy of their great catalog.▲

*That's it for this month. Send questions, answers, suggestions and comments to: Current Notes Magazine, 559 Birchmount Rd. #2, Toronto Canada, M1K 1P8. You can also e-mail us at: hcarson@io.org or lianne@io.org. A lot of our writers have Internet e-mail addresses too. Contact them or us, if you've got something to say!*


WANTED: The Toronto Atari Federation is looking for a Mega4STe, in reasonable, working condition. TAF is not interested in a hard drive, monitor or software; just the Mega with a keyboard. CALL-TAF if you've got one (416 225-5823), and leave a message. You can also send e-mail to: taf@io.org, hcarson@io.org, or lianne@io.org.

FOR SALE: BLowUp030 Hardware Version 1 (for multisync monitors). Brand new, never used. For Falcons only. Excellent resolution extender - up to 1024x768i. $75 Cdn, including shipping. Call (416) 752-2744, or send e-mail to hcarson@io.org

FOR SALE: Distributor overstock of K-Spread4 Lite (latest version). Brand new in the box, with original disks and binder manual. $20 Cdn each. Call (905) 824-8484, or send e-mail to: zalesak@io.org, or hcarson@io.org. K-Spread is still a terrific spreadsheet program!

MEMBERSHIP in the Toronto Atari Federation is only $35 per year. Benefits include a full subscription to the Phoenix Newsletter, admission to all regular, monthly meeetings, 16/32 Library discounts, Seminar and Workshop discounts, full TAF Online BBS access (local message and file areas, as well as Atarinet, Fidonet & comp.sys.atari). CALL-TAF for more info at (416) 225-5823 and leave a message. We'll be happy to send you a brochure! You may also send a check made out to 'Toronto Atari Federation' to: TAF, 5334 Yonge St. Suite 1527, Willowdale ON, Canada, M2N 6M2. Superb Atari/TOS/GEM support.

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****RTFM!!***
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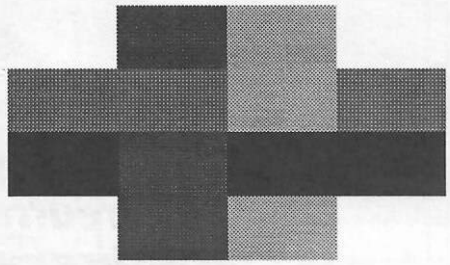

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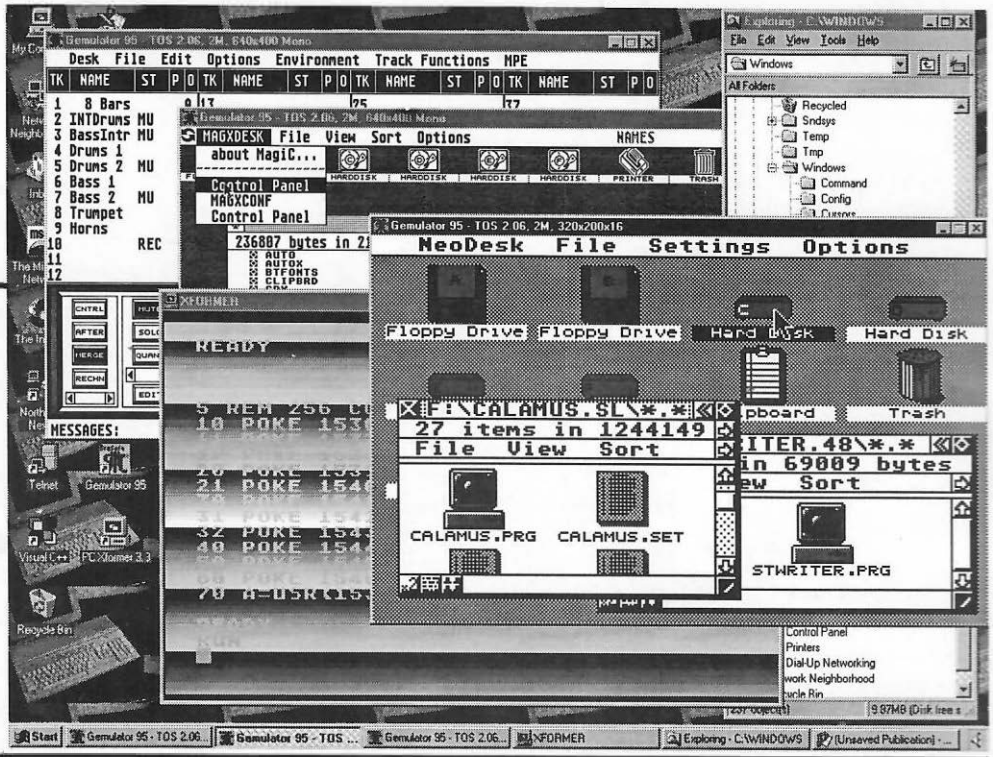
# Gemulator 95 *version 4.1*

## *The Atari Mega ST / STE Emulator For Windows 95*

Introducing **Gemulator For Windows 95** version 4.1, the Atari Mega ST / STE emulation card for Windows 95 and Windows NT. Gemulator runs Atari ST and STE software directly on the Windows desktop as shown below. Use Windows multitasking to run several Atari sessions at once, each one configurable separately. Gemulator emulates a full speed 68000 processor and ST/STE hardware (including the MFP, video, Yamaha, and blitter chips). It runs TOS, GEM, Neodesk, MagiC, Geneva, Omen, MultiTOS, and other Atari operating systems. Load programs from floppy disk, CD-ROM or any hard disk partition. It supports the Atari ST screen modes (320x200, 640x200, 640x400) and SuperVGA modes (800x600, 1024x768, and 1280x1024), great for running Pagestream, Calamus SL, and other graphical software. The Gemulator card fits easily into any 8-bit or 16-bit card slot in your PC. With TOS 2.06, the cost is about **$210 U.S.** complete. Available from **Toad**, **B & C**, **Run PC**, **Falcon Systems**, **FaST Club**, **Compo**, and other Atari dealers.

This Windows 95 desktop is running 3 separate Gemulator sessions - two in monochrome and one in ST low resolution. Each one has been booted with a different operating system: GEM, MagiC, and Neodesk.




## *PC XFORMER*

***Atari 130XE Emulator for DOS***

The bottom window shows a 256-color Atari BASIC demo running on our PC Xformer Atari 8-bit emulator. With the optional PC Xformer Disk Cable, connect an Atari 810 or 1050 disk drive to your PC, eliminating the hassle of transferring 8-bit disks! PC Xformer costs just **$34.95**.

**To see a full color version of this and other screens, browse our Branch Always Software web page on the Internet at http://www.halcyon.com/brasoft/. The web page includes a complete worldwide dealer listing of Gemulator and PC Xformer dealers, screen shots of both products, detailed speed benchmarks, upcoming show dates, latest product announcements, and FREE upgrades for registered users.**

Product details: Gemulator 95 requires a 486 or Pentium based PC with 8 megabytes of RAM running Windows 95 or Windows NT. Versions for MS-DOS, Windows 3.1, and OS/2 Warp are available from our web page to registered users only. Gemulator 95 and PC Xformer are available immediately from most Atari dealers in the United States, Canada, England, Germany, France, Norway, Sweden, and Holland. Or order directly from Branch Always Software using VISA or MasterCard.

See our 1996 product demos at the Houston Atari Safari, the Sacramento SAC show, the MIST Atarifest in Indianapolis, and the Toadfest. Check our web page for the latest announcements and product information.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